

Jan. 16,
1960

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Consumers are planning cautiously

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BUSINESS WEEK

A MCGRAW-HILL PUBLICATION

FIFTY CENTS

JAN. 16, 1960



Delbert W. Coleman makes music with Seeburg Corp. by taking it into full-line vending. (Marketing)



Presto change-o *with a bang!*

Now industry has a brand-new and inexpensive tool for forming even the toughest metals into intricate shapes. Using plastic dies, hard-to-handle metals are blasted into shape with explosives.

Developed as a low-cost way to form metals into shapes such as spheres, cones, cylinders, and corrugated panels, this technique is made even more practical by Shell Chemical's tough Epon[®] resin. The smooth, impact-resistant surface of Epon resin dies form such metals as titanium and stainless steel to extremely close tolerances . . . costly hand finishing of parts is eliminated.

With Epon resins to shape metals into more useful forms for industry, Shell Chemical helps give shape to a world of things to come.

Shell Chemical Corporation

Chemical Partner of Industry and Agriculture

NEW YORK



GENERAL BUSINESS

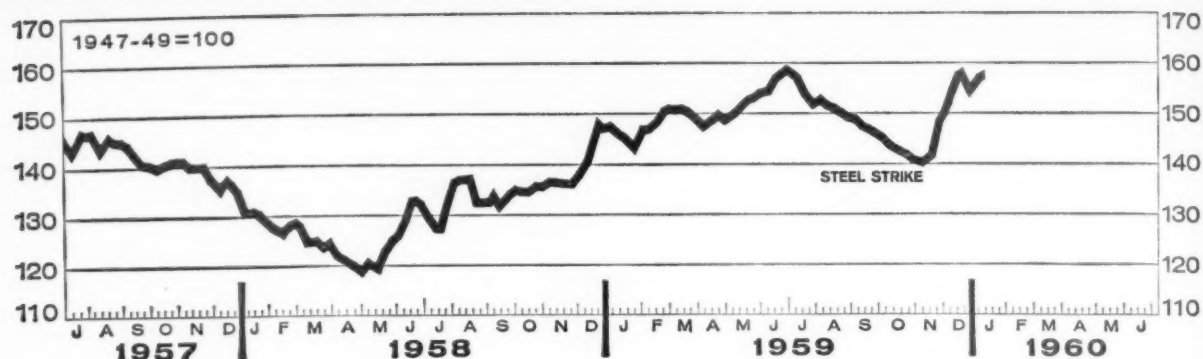
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FIGURES of the WEEK



BUSINESS WEEK INDEX (chart)

1953-55 Average	Year Ago	Month Ago	Week Ago	\$ Latest Week
133.3	146.7	156.9	157.7r	158.6*

PRODUCTION

Steel ingot (thous. of tons).....	2,032	2,111	2,726	2,715r	2,715
Automobiles	125,553	133,362	86,056	112,113r	161,907
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.).....	\$52,412	\$59,222	\$60,030	\$52,013	\$56,638
Electric power (millions of kilowatt-hours).....	10,819	13,554	14,167	13,565r	14,308
Crude oil and condensate (daily av., thous. of bbl.).....	6,536	7,052	7,123	7,068	7,112
Bituminous coal (daily av., thous. of tons).....	1,455	1,403	1,510	1,370r	1,465
Paperboard (tons).....	247,488	303,880 ^a	329,400	138,521 ^a	261,488 ¹

TRADE

Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars).....	70	55	61	56	59
Carloadings: all others (daily av., thous. of cars).....	47	43	47	38	38
Department store sales index (1947-49 = 100, not seasonally adjusted).....	121	104	249	246	113
Business failures (Dun & Bradstreet, number).....	198	321	248	226	242

PRICES

Industrial raw materials, daily index (BLS, 1947-49 = 100).....	89.2	89.2	93.9	93.4	93.6
Foodstuffs, daily index (BLS, 1947-49 = 100).....	90.5	79.9	71.7	70.8	71.9
Print cloth (spot and nearby, yd.).....	19.8c	18.2c	23.0c	23.0c	22.9c
Finished steel, index (BLS, 1947-49 = 100).....	143.9	186.9	186.8	186.8	186.8
Scrap steel composite (Iron Age, ton).....	\$36.10	\$40.50	\$41.17	\$41.50	\$41.50
Copper (electrolytic, delivered price, E & MJ, lb.).....	32.394c	29.005c	34.425c	34.113c	34.035c
Aluminum, primary pig (U. S. del., E&MJ, lb.).....	20.6c	24.7c	24.7c	26.0c	26.0c
Aluminum, secondary alloy #380, 1% zinc (U. S. del., E&MJ, lb.).....	†	21.77c	23.76c	25.02c	25.01c
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.34	\$1.97	\$2.09	\$2.09	\$2.07
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	34.57c	34.30c	31.79c	31.88c	31.88c
Wool tops (Boston, lb.).....	\$1.96	\$1.63	\$1.88	\$1.86	\$1.85

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	31.64	55.61	58.96	60.08	58.89
Medium grade corporate bond yield (Baa issues, Moody's).....	3.59%	4.85%	5.27%	5.32%	5.33%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	2-2½%	3¼%	4½%	4½%	4½%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	†	62,903	61,837	63,204r	61,967
Total loans and investments, reporting member banks.....	†	103,076	103,980	105,363r	103,914
Commercial, industrial, and agricultural loans, reporting member banks....	†	31,905	30,951	31,395r	31,089
U. S. gov't guaranteed obligations held, reporting member banks.....	†	34,078	27,995	27,468r	27,018
Total federal reserve credit outstanding.....	26,424	28,275	29,153	29,629	29,318

MONTHLY FIGURES OF THE WEEK

	1953-55 Average	Year Ago	Month Ago	Latest Month
Retail sales (seasonally adjusted, in billions).....November.....	\$14.5	\$17.0	\$18.3	\$17.8
Domestic air cargo (express and freight, millions of ton miles, A.T.A.).....November.....	22.5	33.0	43.2	36.0

* Preliminary, week ended January 9, 1960.

† Not available.

¹ Jan. 1-9, 1960. ^a Dec. 26-31, 1959. ² Jan. 1-10, 1959.

r Revised.

‡ Date for 'Latest Week' on each series on request.

THE PICTURES—Cover—Mike Shea; 18—WW; 19—(lt.) General Motors Corp., (rt.) Ford Motor Co.; 20—(top lt. & bot. lt.) Leonard Nadel, (bot. rt.) Bob Willoughby; 21—(top & bot. rt.) Leonard Nadel, (bot. lt.) Bob Willoughby; 24—(top) WW, (bot.) UPI; 28—Pictorial Parade; 50—General Electric Research Laboratory; 58, 59—Ed Nano; 62—Westinghouse Electric Corp.; 68, 69—Karl Kuntze; 76—Mike Shea; 85—Grant Compton; 121—Kroehler Mfg. Co.

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1960

DIVERSI- FICATION

... a big word at **HOUDAILLE** (say "HOO-DYE")

"Variety's the very spice of life", said the poet. And at Houdaille we believe that variety is the very life of business. Just 5 years ago Houdaille was known only as a company that made automotive parts. Today Houdaille Industries is a highly diversified enterprise with 17 divisions and 60 plant locations throughout the United States and Canada.

Such growth is not only phenomenal, it is healthy. It means that Houdaille earnings are not dependent on the ups and downs of any one particular industry. It means greater job security for our thousands of employees. It means that Houdaille's stockholders... all 15,000 of them... have invested their savings and their faith in a healthy, growing company. We'd like to tell you more about what we do at Houdaille. Drop a line to Ralph F. Peo, President, Houdaille Industries, Inc., 1280 Main Street, Buffalo 9, New York.

HOUDAILLE INDUSTRIES, INC.



MANUFACTURERS AND SUPPLIERS TO THE AIRCRAFT, AUTOMOTIVE, CHEMICAL, PETROLEUM, ELECTRONICS, METALWORKING, RAIL AND MARINE TRANSPORTATION, ROAD CONSTRUCTION AND STEEL INDUSTRIES.



HOUDAILLE AND THE 20-STORY CRANE—As tall as a 20-story building, this 325 ton crane was designed and built in one year by Provincial Engineering Ltd. of Canada, a Houdaille subsidiary. The largest crane ever built in Canada, its boom stretches 225 feet in the air and can lift 55 tons at one time. This mammoth crane is now serving Port Weller Dry Docks at the Welland Canal on the St. Lawrence Seaway.

Not for talking through

WHEREVER YOU GO in New York State today, you'll hear talk that makes sense... to people interested in new and better job opportunities, to executives interested in greater opportunities for industrial growth. It's the kind of direct, "hard-hat" talk you'd expect from Governor Nelson Rockefeller's new team of business and professional men in government.

You'll hear about the new survey of business needs... the new attitude of government at all levels toward improving facilities and public services for industry... labor's enviable record in keeping the state's strike-time-lost average 50% below the national figure... a new look at the tax structure affecting business...

and about many other important new developments.

If you agree that your company could grow in this hard-hat businessman's climate, why not get in touch with the Commissioner of Commerce, Keith S. McHugh? Former head of the New York Telephone Company, he can discuss your plant-location needs with the understanding of long business experience.

Mr. McHugh will provide you with free, up-to-date reports on sites, labor, transportation, markets, raw materials, water. The reports are confidential, and tailored to your needs. Write Keith S. McHugh, New York State Department of Commerce, Room 352, 112 State St., Albany, N. Y., or phone ALbany 5-7521.



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where they're talking the businessman's language

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BUSINESS WEEK • JANUARY 16, 1960 • NUMBER 1585

Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948). Founder. **PUBLICATION OFFICE:** 330 West 42nd Street, N. Y. 36, N. Y. See panel below for directions regarding subscriptions or change of address. **EXECUTIVE, EDITORIAL, CIRCULATION AND ADVERTISING OFFICES:** McGraw-Hill Building, 330 West 42nd Street, N. Y. 36, N. Y. Donald C. McGraw, President; Joseph A. Gerardi, Executive Vice President; L. Keith Goodrich, Vice President and Treasurer; John J. Cooke, Secretary. Officers of the Publications Division: Nelson L. Bond, President; John R. Callahan, Vice President and Editorial Director; Joseph H. Allen, Vice President and Director of Advertising Sales; A. R. Venezian, Vice President and Circulation Coordinator. Subscriptions to Business Week are solicited only from management men in business and industry. **POSITION AND COMPANY CONNECTION MUST BE INDICATED ON SUBSCRIPTION ORDERS. SEND TO ADDRESS SHOWN IN BOX BELOW.** United States subscription rates for individuals in the field of the publication, \$6 per year, single copies 50¢. Canadian and foreign rates on request. Second class postage paid at N. Y. 1, N. Y., and at Albany, N. Y. Printed in U. S. A. Title registered in U. S. Patent Office. © Copyright 1960 by McGraw-Hill Publishing Co., Inc. All rights reserved.

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READERS REPORT

Company Xmas Cards

Dear Sir:

Your recent article on company Christmas cards [BW—Dec.19'59, p26] was most encouraging, because it back-stopped our own philosophy. We strongly believe that sending of cards has become more and more commercial, completely devoid of sentiment or meaning. . . .

LUCIEN R. GREIF

GREIF-ASSOCIATES, INC.
NEW YORK, N. Y.

Dear Sir:

It is quite true as your article [BW—Dec.19'59,p26] indicates that corporate and business Christmas cards often have a very thin veneer of Christmas spirit and are recognized as the commercial public relations medium they usually are.

Nevertheless—we are all human and somehow are a little sentimental during the holiday period. An expression of goodwill from those with whom we are in business contact during the year is sincerely appreciated by most of us.

We have, therefore, always believed that a personal Christmas card from our salesmen, with or without the company name, addressed to the individuals with whom they work during the year is an appropriate goodwill gesture for which the company is happy to pay.

Today more than ever, business pressure is such that we rarely have time to exchange a few pleasantries with our business friends—what better way is there to tell people we are thinking of them as individuals and not just as factors in our P&L statement—than to send them our good wishes for the holidays?

HEINZ H. LOEFFLER

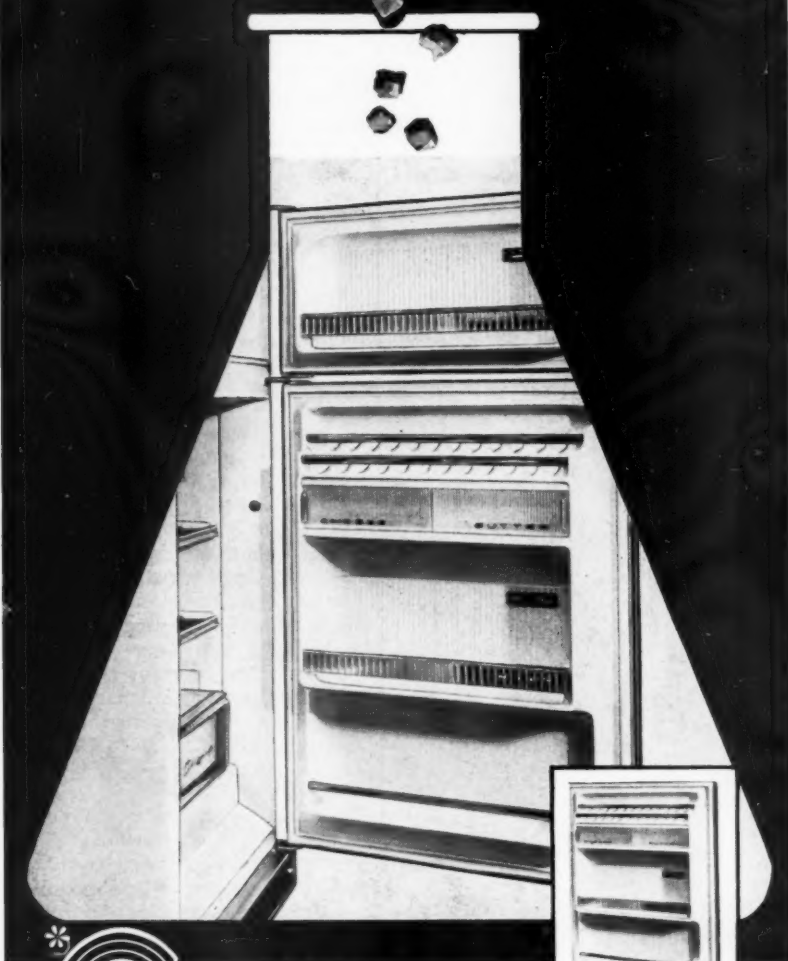
PRESIDENT
EXETER PAPER CO., INC.
CHICAGO, ILL.

Drug Investigations

Dear Sir:

Thanks for your succinct article Where Congress Drug Industry Probe Leads [BW—Dec.19'59,p 30]. It seems rather ironical that while the Kefauver subcommittee is investigating the causes for the high cost of ethical drugs, Congress has on its calendar the Humphrey-Harris Bill which, if passed, should help to maintain high or higher

it cools*



CYCOLAC

THE BORG-WARNER PLASTIC THAT'S TOUGH, HARD, RIGID

Philco had a stiff list of requirements for the door liner of their 1960 refrigerator: resistance to Freon corrosion . . . an easy-to-clean, hard, glossy surface . . . toughness at low temperatures and resistance to stain. CYCOLAC—the tough, hard, rigid **ABS** plastic from Borg-Warner met every requirement with resounding success! This is just one of many examples of how CYCOLAC is solving specific design problems for leading manufacturers such as Western Electric, Lionel, and Victor Adding Machine Company.

It may solve one of **your** design problems, too.

CYCOLAC Better in more ways than any other plastic for so many products

GET THE FACTS — WRITE TODAY!

MARBON CHEMICAL
WASHINGTON



Division **BORG-WARNER**
WEST VIRGINIA

prices for many of the other items sold in the drugstore.

Possibly the Kefauver investigation will alert both Congress and the American consumer to this resale price maintenance act.

STEWART LEE

CHAIRMAN, DEPT. OF ECONOMICS
& BUSINESS ADMINISTRATION
GENEVA COLLEGE
BEAVER FALLS, PA.

Personal Income

Dear Sir:

We have noticed since the publication of the July 1959 Personal Income by States data [BW—Sep. 26'59,p134] that you have shown revised figures for the month of a year ago. This leads us to believe that you have revised the state income figures, probably as a result of the Department of Commerce revision in the Personal Income data last July.

If revised data are available by month we would very much appreciate receiving them for the period covered by the revision.

ROBERT O. WELK

KODAK OFFICE STATISTICAL DEPT.
EASTMAN KODAK CO.
ROCHESTER, N. Y.

• Revised monthly personal income figures, by states, are available on request.

Radcliffe Report

Dear Sir:

I believe your brief discussion of the Radcliffe report and the reasons for its apparent failure to elicit much comment in the U.S. are somewhat misleading. The author of the article implies that the issues and policy recommendations are new and vital and should command the attention of monetary economists. Actually, every one of these points (e. g., the concept of liquidity and the extension of Federal Reserve control over its expansion and composition, central bank independence from the Treasury, and the growth and possible destabilizing activities of financial intermediaries) has been the subject of extensive and continued controversy in recent years. As I understand it, the Commission on Money and Credit . . . is concerning itself mainly with synthesizing and digesting work that has already been done, rather than sponsoring original research. . . .

WILLIAM P. YOHE

ASST. PROF. OF ECONOMICS
DUKE UNIVERSITY
DURHAM, N. C.

Thousands of firms are profiting
from this versatile telephone!



Is yours?

Available in an 18-button executive model (shown) and a 30-button secretarial model...both in green, gray or beige.

It's THE CALL DIRECTOR telephone

We're getting high praise for it from business firms all over the country. It's boosting operating efficiency—at low cost—wherever it is being used.

Efficiency is the Call Director's strong suit. Its versatile pushbuttons put as many as 29 outside, extension or intercom lines right at your fingertips. With Bell System intercom, it gives you interoffice connections in an instant. It permits six-way telephone conferences. It lets you add others to calls on your line and hold calls on several lines at

once if you wish. You just push a button—or dial.

The effect it has on productivity and profits will delight you!

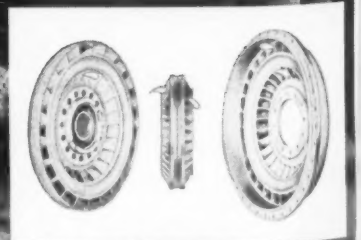
ONLY ONE EXAMPLE

The Call Director is only one example of new Bell System equipment now available to serve you profitably. Why not learn about all these new developments? Just call your Bell Telephone business office and a representative will visit you at your convenience. No obligation, of course.

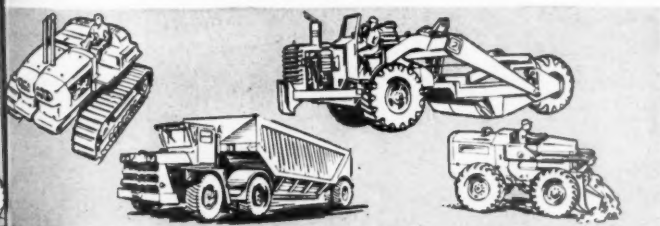


BELL TELEPHONE SYSTEM

What's it costing



you to keep the clutch pedal?



THE ACTUAL FIGURES are on your own cost sheets: Engine-disconnect clutch replacements at \$800 or more each year (plus expensive downtime)—too-frequent overhauls of overtaxed engines at \$1,200 to \$1,500 each—constant repair bills for shock-load-damaged axles and drive lines —\$1,500 to \$2,000 in equipment damage every time you train a rookie driver.

What Can You Do About These Costs?

Now mark this: When your equipment has Allison TORQMATIC DRIVES, you eliminate these costs—or cut them to amazing new lows. Engine-disconnect clutch repairs are ended, so is shock-load damage. New drivers practically never make a costly shifting mistake. You save one engine overhaul out of three.

So you're money ahead no matter how good your present clutch-pedal equipment is—or how skillful the men who operate it. For TORQMATIC takes over the clutching job—adjusts power output to every change in load demand—protects your whole power train every working minute.

Can You Afford to Pay the Penalty?

Can you afford, then, to pay the penalty of owning old-fashioned clutch-pedal equipment—especially when it means competing against other owners who looked past first cost and are now enjoying TORQMATIC savings?

Remember, no other heavy-duty hydraulic transmission has been so thoroughly battle-tested over the years. And you can get it in over 100 makes of equipment of most every type. See your equipment dealer—or write Allison for the full story.

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Indianapolis 6, Indiana

In Canada: General Motors Diesel Ltd., London, Ontario

Allison

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Built stronger to last longer—Allison casts its converter for extra strength, greater precision—and the converter is integrated with the transmission for a neat, easily serviced installation.

THE MODERN DRIVE FOR MODERN EQUIPMENT

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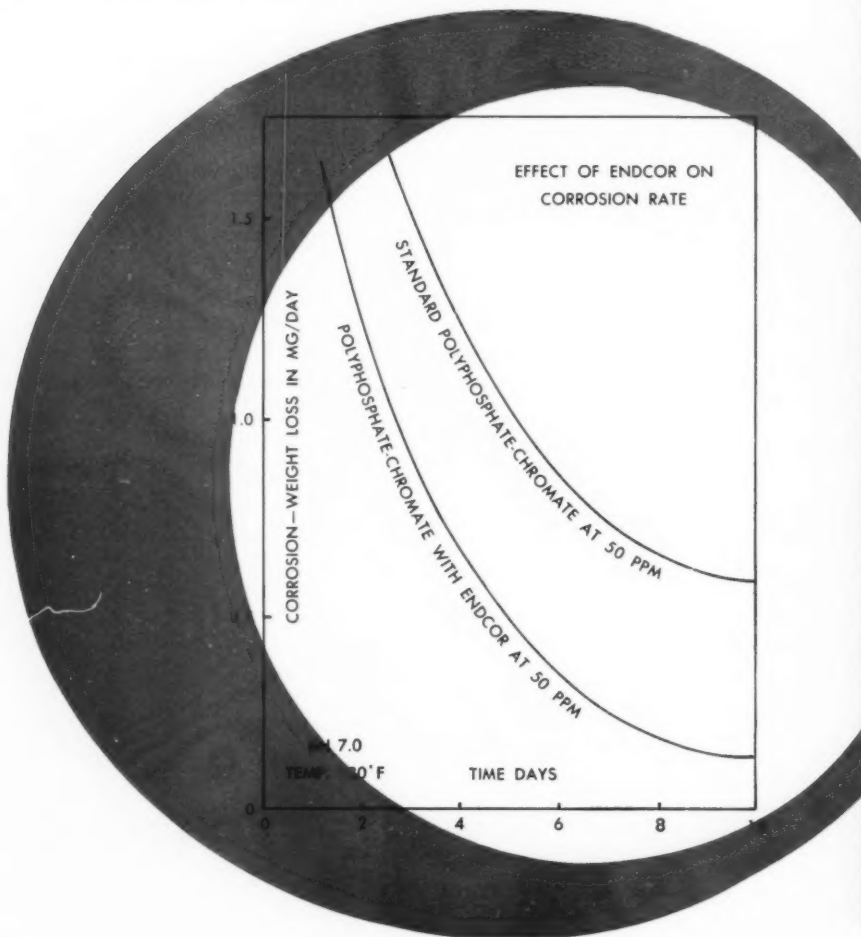
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BUSINESS OUTLOOK

BUSINESS WEEK

JAN. 16, 1960



Here's a hopeful note on the outlook for construction: December seems at least to have checked the six-month-old decline.

One month's figures don't make a trend, of course. However, if the government's official 1960 estimate of \$55.3-billion (BW—Jan.9'60,p34) is to be realized, the figures will have to keep right on rising from here in.

Construction of all sorts put in place during December is estimated by the Bureau of the Census at a seasonally adjusted annual rate a little better than \$55½-billion.

That's up 3% from the November level but still 7% under the peak last May. And it's 5% under the projected rate for all of 1960.

Perhaps the December turn-around owes something to the resumption of steel deliveries. If so, this could be a good omen.

However, the figures must be taken with due caution. For lack of funds, the estimates are made according to a formula rather than by a field check. This leaves them susceptible to considerable error (though the past record seems generally accurate at least for trend).

Note, too, that steel didn't cause the slide, even though the strike may have accentuated the speed. The dip started before the strike.

Virtually all types of construction seem to have contributed to the December upturn. Even housing shows up better.

The value of work done on residential buildings is put at an annual rate of \$21.7-billion. That compares with the previous month's estimate of \$21.1-billion (but is down from \$23.8-billion last May).

Even housing may have been held back in October and November for lack of sufficient steel.

In most postwar years, this would not have been the case. Earlier, most of the work was on single-family homes which need little steel.

At the present time, however, the emphasis has switched strongly to apartment buildings. These, of course, do need steel (and they can easily run short, for they often go up on hand-to-mouth deliveries).

Complaints about the scarcity of mortgage money are encountered more and more frequently these days, as might be expected.

But there's a new competitor for the available supply of funds.

Uncle Sam's securities (but not E Bonds) have a new appeal to investors. You saw that in the "Magic 5s" when they came out last year. You saw it again this week when the Treasury's issue of one-year discount bills attracted an unprecedented popular interest.

These bills were calculated to sell at a price to give a return of better than 5%. And they did—on an average yield basis of 5.067%.

There is undeniable magic in a 5% yield on government obligations as far as the run-of-the-mill saver is concerned. He draws down his bank deposit to get in—and that cuts banks' supply of mortgage money.

The competition, though, probably runs deeper than that.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

JAN. 16, 1960

Banks and other lending institutions also can be lured by a 5% yield (especially on such relatively risk-free government paper as a bill which will be redeemed at par in a year, thus relieving the investor of any danger of being "frozen in" as many have been in longer-term stuff by the declining market in recent months).

—•—

Consumers aren't any too sure they will be free spenders in 1960 (page 86). And you might easily assume that they had turned tightwad late in 1959 if you didn't subject the figures to analysis.

Total retail sales fell sharply off the earlier rising trend during November and December, the Commerce Dept. estimates indicate.

Actually, dollar volume of all types of stores went well ahead of the very high figures of the year before in November and December.

This, in itself, was a very respectable achievement.

The only trouble was that, when allowance is made for seasonal factors, the two months were below the very high April-to-October rates.

Now look behind the figures. You'll find that the whole drop was in the sales of durable goods—mostly automobiles.

And everyone knows the reason: not enough cars to sell.

Where goods were plentiful, retail sales went right on rising.

Thus, for all nondurables, the seasonally adjusted figures show November setting a new high. But just for a moment; December came right along to break it with a \$12¼-billion total.

Until disproved, it must be assumed that durable goods would have done their share had the autos been available.

Despite their year-end problems, automobiles (new and used) and automotive products rolled up volume of \$39½-billion at retail for 1959.

That was \$5½-billion better than the doleful 1958 figure; it also was somewhat higher (in dollars if not in units) than 1957—and \$1-billion better than 1955, for that matter.

Final totals for all types of stores last year came to \$215.6-billion, up from almost exactly \$200-billion in both 1957 and 1958.

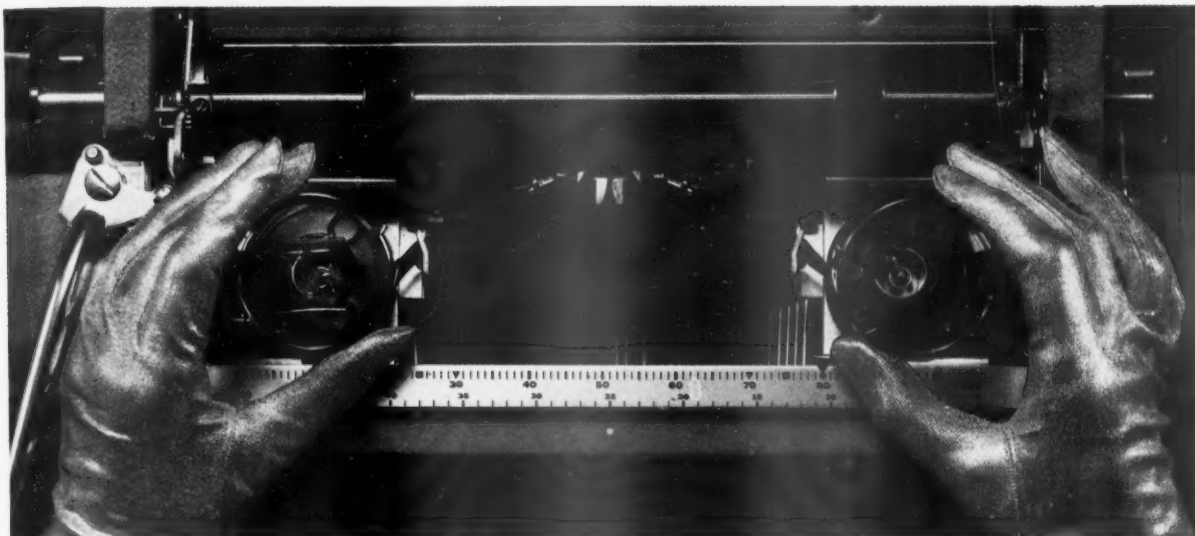
There were gains across the board. However, the automotive category (on its strong showing from March through October) had the best one at 16½%. Lumber and hardware came next with a plus of 10%.

Most other types of stores averaged gains of 6% to 8% except for food. After dominating the scene in 1958, trade in food rose less than 3% (partly due to the fact that prices averaged about 2% lower.)

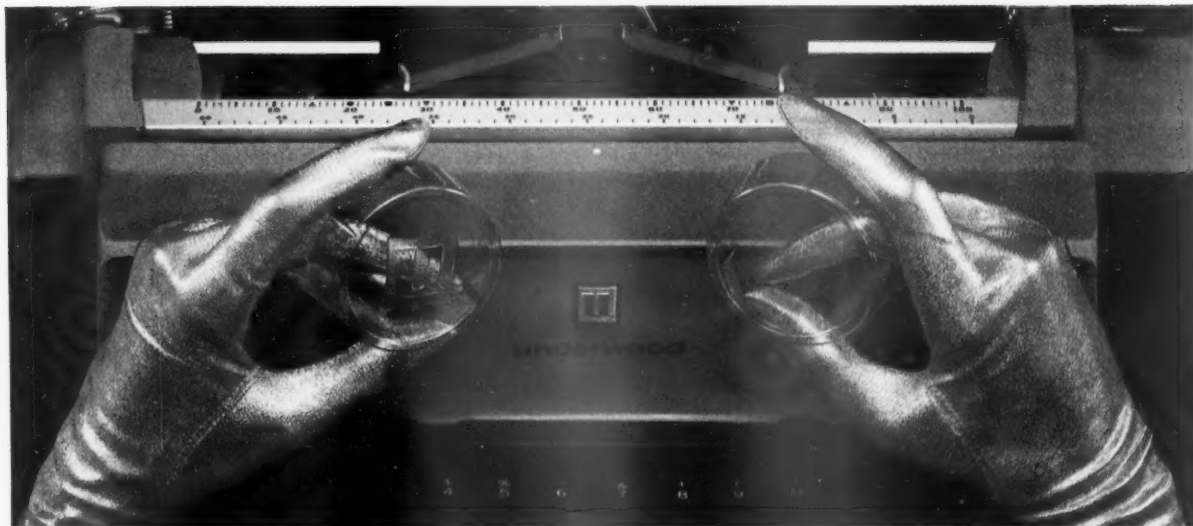
There will be cars aplenty to carry 1960 retail sales to new highs—if buyers are so minded. At least, that's the way things look now.

Output last week topped 160,000, the best single week since 1956; of these, some 36,000 were "compacts" for a new high in this category.

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1. She places two spools in position on the spindles...



2. She removes two halves of a protecting transparent container...

There's magic in it... Kodapak magic!

ACTUALLY, changing an Underwood Duo-pak Ribbon is like doing something with "magic gloves," thanks to a cleverly contrived Kodapak Sheet container.

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Competitive Edge — GREATER CUBIC CAPACITY. New lightweight 5400TD with 50-inch fiberglass tilt-cab permits longer trailer for maximum payload.

Competitive Edge — MORE PAYLOAD. New-concept aluminum and fiberglass construction turns deadweight into payweight. It's WHITE's new 4400TDL.



Ted Guayis



Competitive Edge — MORE WORK. WHITE's 9064 allows heavy front axle loading, more payload and shorter over-all length for greater maneuverability.

Here's how WHITE trucks give you a Competitive Edge

These three trucks are typical examples of a whole flock of "firsts" from WHITE... "firsts" that grow naturally from the WHITE creed of creative engineering.

WHITE creative engineering starts with pace-setting design innovations and culminates in the custom-engineering of your truck to give you a competitive edge in *your* business.

It lets you haul maximum payloads within legal limits at the *lowest* possible cost. Our leadership is *your* leadership. So make yours WHITE!

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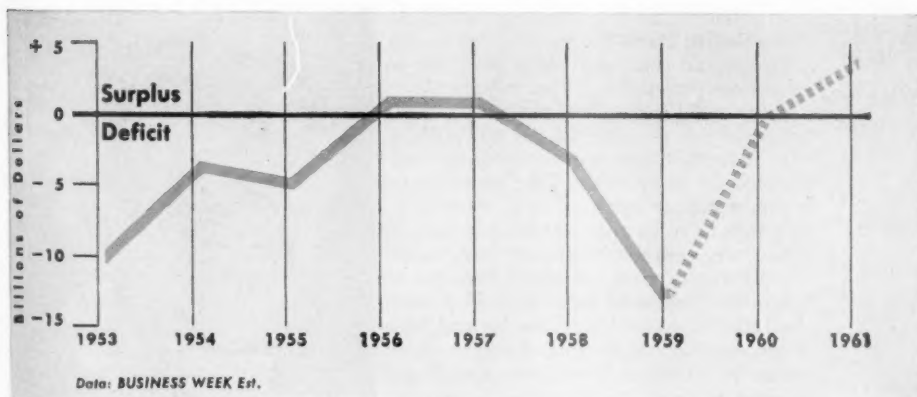
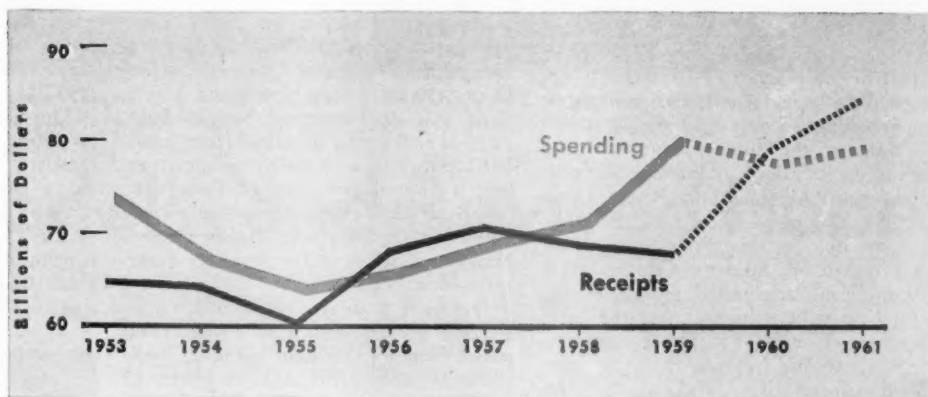
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Eisenhower's Fiscal Record



PRESIDENT SEES AT LAST . . .

A Surplus to Reduce the Debt

For most of the seven years he has been in office, Pres. Eisenhower has unhappily watched the public debt rise—convinced that it is harmful but unable to halt the trend.

In his last year in office, doing something about it is his first order of business.

In a move that caught Republicans and Democrats alike by surprise, he has boldly projected a surplus of \$4.2-billion for the next fiscal year (chart). He followed this with a proposal that this money be used for debt reduction and nothing else.

His goal was to make the cause of fiscal conservatism a prime issue in the Congressional session that is

just starting. And when the Presidential and Congressional elections roll around next November, he hopes the voters will have a chance to make a clear-cut decision on the same issue.

• **State of the Union**—Eisenhower put the spotlight on debt reduction 10 days ahead of the official delivery of the budget. He announced the surplus and his determination to apply it to debt reduction in his State of the Union message to Congress last week. The passage was not in the released text of the speech, and the amount of surplus predicted was a surprise to most fiscal experts. They had expected the Administration to talk about a surplus of something like \$2.5-billion.

Republican applause was spontaneous and enthusiastic. The Congressional wing of the party has long believed that a conservative fiscal policy can be turned into an effective national issue, and Eisenhower was giving them powerful new ammunition.

I. The Politics of It

Democrats sat silent during the speech, but once the joint session broke up, their mimeographs hummed. In a matter of hours, individual Democrats had produced a dozen or more ways of spending the surplus on projects ranging from school rooms to outer space. A few plumped for tax reduc-

tion. There was a notable scarcity of praise for Eisenhower's idea of reducing the debt.

The Democratic leaders of Congress moved more cautiously.

Their first reaction was to raise doubt about the accuracy of the Eisenhower prediction. The actual surplus is likely to be much smaller, they told colleagues—a warning to the spenders not to count on having \$4.2-billion to play with. House Speaker Sam Rayburn then began a series of conferences designed to keep tax-cut sentiment from snowballing.

But on the direct issue of more spending vs. debt reduction, in case the surplus does stand up, Rayburn and Senate Majority Leader Lyndon Johnson are holding their fire.

• **Problem of Strategy**—Congressional Republicans are united almost by instinct on debt reduction, but the issue poses a dilemma for the Democrats.

Rayburn and Johnson themselves are fiscal conservatives, and so are the Democrats who head the key committees. But they have a national election to try to win this November, and they also have to deal every day with an increasingly restless pro-spending bloc of Northern Democrats.

Eisenhower's move is keeping the Democrats temporarily off balance and puts the cause of fiscal conservatism a significant step forward. So far he has fought merely to curb spending. Now he's reaching for the payoff—debt reduction.

• **Johnson Is Key**—The President's advisers admit there's a risk in giving the Democrats a \$4.2-billion target to shoot at. But they think, in the final analysis, the risk boils down to what Johnson—an unavowed but eager candidate for President—decides to do. They aren't afraid of what the Northern Democrats alone can do.

"If Johnson wants to, he can blow the session wide open," one White House strategist says. "He's got the power, especially with Sam Rayburn as his campaign manager. If he decides to woo Northern support for his nomination by backing spending programs, there's no way we can stop him."

Right now, they would bet that Johnson rejects this strategy in order to protect his own standing as an economy-minded senator. If they are wrong, the White House still has the veto weapon, shiny from constant use last year.

II. The Arithmetic

The bare arithmetic of the new budget picture is simple enough:

• Eisenhower said spending in fiscal 1961 would be \$79.8-billion. This is about \$1.1-billion less than key officials in the Administration had been talking about in recent weeks.

• The President estimated receipts at \$87-billion—\$500-million higher than the figure that has been used in budget planning up to last week.

This combination of lower spending and higher receipts raised the projected surplus for the coming year from around \$2.5-billion to the \$4.2-billion announced by the President.

• **Some Discretion**—This does not mean that the \$4.2-billion figure is deliberately inflated, thrown at Congress for partisan political gain, as some Democrats are saying in private.

In making long-range budget forecasts—it will be 18 months before fiscal 1961 comes to a close—any administration is limited in its area of discretion. Most of the expenditures will stem automatically from laws already on the books, and most of the revenues from taxes long in effect.

But there is an area of discretion and an area of judgment that's subject to policy decisions—which spending programs to push, which ones to contract, and—most important of all—how the business future should be assessed.

• **Not Inflated**—In the present instance, it is likely that the spending estimate was slashed below previous estimates on the ground that agricultural price support costs are falling. The receipts estimate could have been raised on the ground that the effect of the steel strike in reducing corporate profits failed to ripple out much beyond the steel companies themselves.

Whatever the exact shuffling of numbers, the estimated surplus does not seem unreasonable. If the Administration had come in with a \$2.5-billion surplus, it would have been accused of deliberately understating the real picture as a trick to hold down spending drives. The \$4.2-billion is in the range of what many independent fiscal experts and career government economists had been talking about for the year.

Eisenhower said this week that the budget outlook is geared to a \$510-billion economy this year, measured in gross national product. He added that some people thought the economy would rise even faster, perhaps averaging \$524-billion.

III. Otherwise Nothing New

Except for the budget surprise, Eisenhower's State of the Union message brought up no new issues.

He urged Congress to raise the 44% interest ceiling on long-term government bonds and followed this with a special message this week on the same point.

He defended his spending program for arms and space science as adequate. This was immediately challenged by Democratic critics, who plan to make it a major issue later on.

He was critical of existing farm laws—to applause from both Republican and Democratic sides of the aisle—but offered no new solutions.

He urged the same modest set of civil rights proposals as last year.

On schools and urban redevelopment, favorite spending proposals of the Democrats, he warned against too much federal activity.

He made no mention of the minimum wage law, where Democrats have said a rise from the present \$1 to \$1.10 or \$1.25 would be one of their goals.

The chief stress in the message was on world peace and the brightening prospects for a relaxation of tensions.

On balance, it was the most conservative of any of Eisenhower's State of the Union messages. But by highlighting debt reduction as a symbol of fiscal conservatism, he injected the first sign of life into the new session.



Antoine Pinay

Breaks With de Gaulle

This week's ouster of Finance Minister Antoine Pinay created France's first political crisis since Pres. Charles de Gaulle came to power (page 95).

Pinay, leader of influential conservatives, has long been at odds with de Gaulle and Prime Minister Debre for his lack of "Gaullist vision." His successor, Wilfred Baumgartner, 58-year-old governor of the Bank of France, may be equally conservative in his economics, but he is considered more pliable and less politically active.

Pinay's chief open quarrel with the regime has centered on economic projects that, he says, smack of state socialism. Paris observers say he has been equally unhappy about foreign policy and at December's Big Four meeting strongly hinted to U.S. and West German officials that de Gaulle's ambitions could wreck the Atlantic alliance.



CORVAIR adds two-door coupe to Chevrolet's compact line; it's same basic size as four-door, but has new roof design.



FALCON, Ford's compact car, gets station wagon, both two- and four-door, claiming lowest tailgate floor loading height ever.

New Models—and Revived Hopes

Early January auto sales look up—and so does Detroit—but it still wonders if big cars will recoup along with compacts.

The automobile industry is starting to recover from a bad scare. For a while last week some of its leading forecasters were taking a skeptical second look at the predictions that 1960 would be one of the best sales years in history.

Now they are back on neutral ground. Early January sales have not been so good as they should be for a near-7-million car year—but neither are they cause for despondency.

Apparently, although final reports were not available at midweek, car sales in the first 10 days of January were 5% or so better than in the last 10 days of December.

That's reason for mild encouragement, as the normal pattern is for the last days of any month to be the highest sales period. So January should end up with a total considerably higher than December.

But Detroit's forecasters won't be sure until they get the dealers' reports for the period from Jan. 11 through Jan. 20.

• **December Blues**—They have had reason to worry. December was a dismal sales month. Even taking into account all the excuses—poor selection of cars in dealers' hands, worry over whether the steel strike would be resumed, the customers' preoccupation with Christmas—auto officials still expected to sell about 60,000 cars more than the 361,700 actually retailed.

Not only that: Dealers began discounting prices—even on the compact cars. Then, of course, there was the usual winter slump in used car sales. Altogether, as January opened, some auto industry officials began to have grave misgivings about the 1960 sales forecasts of more than 7-million (including 6.8-million domestically made cars)

that were being talked up early in December.

• **Hopeful, But . . .**—The auto people now are beginning to breathe a bit easier. They expect the settlement of the steel dispute to restore economic stability. Car sales picked up, as they were expected to, immediately after the steel agreement—though not so much as at least one industry man thought they should.

What is needed to get back on a 7-million annual pace is a 10% to 15% pickup in the Jan. 11-20 period over the first 10 days of the month. That not only is a sizable jump for this time of the year—January, historically, is one of the poorest sales months—but there is at least one element in the present sales picture that is disconcerting.

• **Compacts and Standards**—It is simply this: The compact cars may be carrying the market virtually alone. That's why, even if there was no great surprise in the announcement of Ford Falcon's station wagon and Chevrolet's Corvair coupe (pictures above)—since plans for them had been previously reported—the timing of their announcement could hardly be better.

You can't find any hard clue to this situation in the sales statistics, because of the unavailability (due to the steel strike) of many models. But industry people have the uneasy feeling that most of the market strength is being supplied by the compacts. And where sales fall short of expectations, the lag is due entirely to poor sales of the standard-sized cars.

This doesn't necessarily mean that the compacts are taking business away from the standard-sized cars—instead of from the imports, for instance.

What it could mean is that the only buyers—or, anyway, the bulk of the buyers—in the market are the people interested in compact cars. In other words, it may be that once again, as in the past three years, Detroit's bigger products have failed to arouse buying enthu-

siasm. If true, this could hurt, even if the compact cars' sales outran estimates. There is more profit in a standard-sized car than in a compact.

• **Back on the March?**—Detroit executives are not yet ready to believe that the standard-sized cars are going to be weak in the market. They've got one great hope left. This is the theory that the auto sales rate feeds on itself—a good sales pace seems to promote a better sales pace. And, although the University of Michigan survey (page 86) showed a drop in consumer intentions to buy new cars, all models started off well in the introduction period during last fall.

That was before the shutdowns came. There was never too much concern over whether the compact sales would pick up again, just because of the high interest in them. But what the industry chart-watchers are wondering now is whether the "cadence," as one man calls it, has been permanently broken. Early December reports pointed to that: Sales came to only 213,500 cars in the first 20 days. The last 10-day period, however, showed deliveries of 148,000 domestic cars—"encouraging, better than I thought it would be," says one man in the industry.

Now come the first 10 days of January, with the sales rate continuing to climb. "We're not back to full marching cadence," says an executive, "but we're regaining it."

Both factories and dealers feel that the sales pace is still suffering the effects of the production shutdowns. Although dealers' stocks were nearly 600,000 cars on Dec. 31, they were badly out of balance in regard to models. This should be cured by the 2.5-million car output planned for the first quarter. Just as important, to the dealers, is that the factories have resumed advertising, which they greatly curtailed when production ended. Dealers blame the lack of advertising and other promotion for part of the December sales slowdown.

And Bring the Wife and Kids



JOHN A. DIEMAND, president of INA, chats with a young delegate who prefers the hotel playground to the lecture room.

Insurance Co. of North America entertains the whole family at its annual agents' conference in California.

If you're going to recognize and promote the family as part of your selling efforts, why not start from within?

This, at least in part, is the thinking that led Insurance Co. of North America to spend an estimated \$150,000 last week on a six-day get-together at the Disneyland Hotel for 50 insurance agents, their wives, and their 98 children (pictures). It was the third annual Conference on Family Security and Family Happiness held by INA.

To qualify for a chance to come to the conference, an agent must sell at least 10 policies during a designated 13-week period. The names of the 50 winners are drawn from a hat.

• **Family Influence**—INA officials feel that the presence of the family raises the conference above the typical junket—where employees attend meetings as a side line “and spend the rest of their time in riotous living.”

No member of the family was neglected at the conference. For example, several hotel rooms were converted into a nursery for the one-to-three-year-olds. Other children, divided into age groups

and identified by special Disneyland hats—Mousketeers, Spacemen, Frontiersmen, Adventurers—which they wore nearly all the time, were headquartered in Zorro's Tent. Teenagers got the red carpet treatment at motion picture and television studios.

• **In School**—Things were a bit more serious for the parents. At the lectures, they listened to an imposing roster of speakers, including Hollywood star Ann Blyth; Dr. Hans Selye, founding director of the University of Montreal's Institute of Experimental Medicine & Surgery; Howard C. Petersen, former Assistant Secretary of War and President of Fidelity-Philadelphia Trust Co.; and William Anderson, commander of the Nautilus.

• **One-Stop Insurance**—INA has assets of over \$1-billion, and sells all types of policies. It originated the homeowners policies and several other package deals. Its aim is one-stop selling—sort of a shopping center of the insurance field.

The first conference originated as part of the promotion of the homeowners policy, which the company was then launching. This, of course, was designed to provide insurance for all family needs. INA claims that insuring everything insurable brings family security, which in turn brings family happiness. Thus the name for the conference.



TODDLERS are entertained by registered nurses and baby sitters. One feature is a mass birthday party for all January babies.



PARENTS get time off from school to inspect Disneyland's version of the Nautilus submarine.

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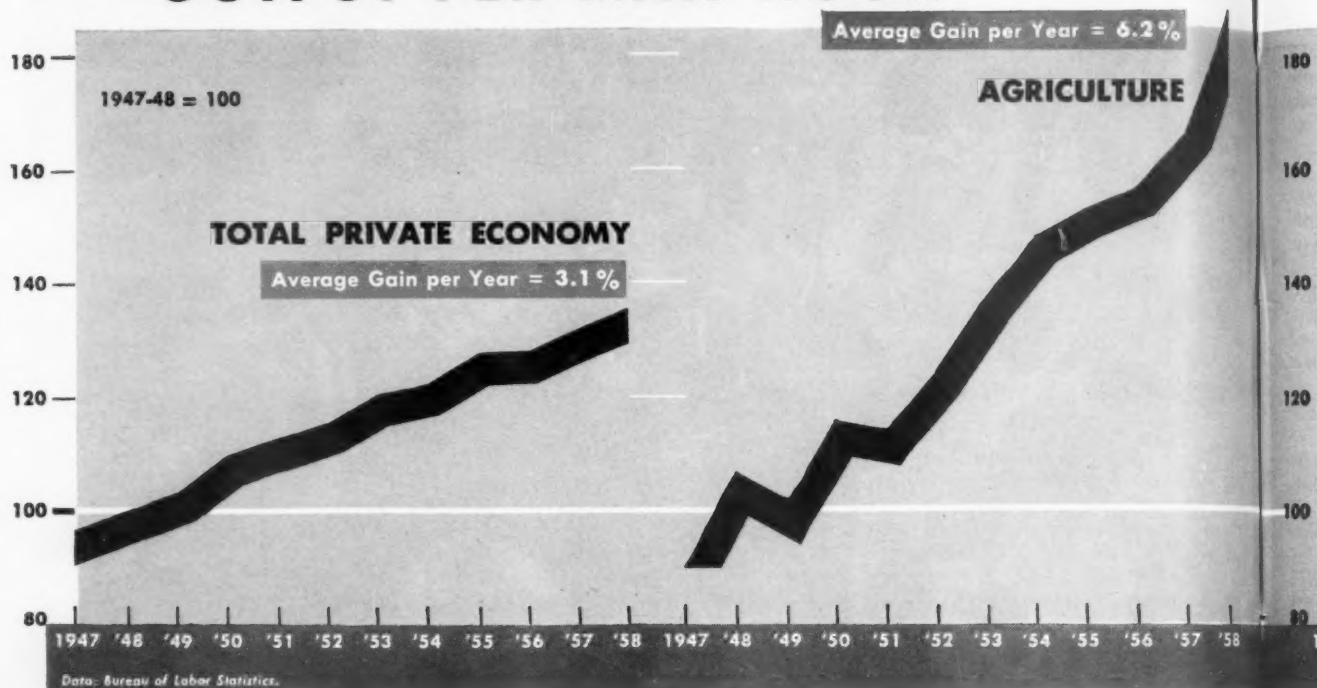


TEENAGERS tour movie and TV studios, meet some of their idols, including Jimmy Darren (hand extended).



WIVES attend all meetings. INA feels that this conference helps them to a better understanding of their husbands' business.

OUTPUT PER MAN HOUR



New Fuel for an Old Fire: How Far

The Bureau of Labor Statistics this week stepped into the middle of a hot dispute over productivity gains in the U.S. economy: whether productivity is increasing from year to year at a constant or an accelerating rate.

The BLS contribution to the debate was a long-awaited report, two years in the making, on postwar gains in output per man-hour (charts), including comparisons with figures for a 50-year span reaching back to 1909. The new report is important as the first such study to analyze productivity in terms of the economy as a whole.

The work was done by BLS technicians, with the advice of the Labor Dept.'s Business and Labor Advisory Research Councils. Three earlier drafts preceded the final version. From the start, the project has been controversial.

• **Tentative Results**—The BLS findings, bearing as they do on the critical areas of collective bargaining and economic growth, won't settle any arguments. The concept of productivity is so complex, and the means of measuring it so diverse, that the BLS figures can be used in attempts to prove almost anything. But the report does draw some carefully hedged conclusions:

• Since World War II, productivity of the total private U.S. economy has been growing faster than the 50-year average.

• But this is not unique. Productivity also spurted faster than the long-term average during the 1920s and middle and late 1930s.

• There is some evidence that productivity has been improving at an accelerating rate over the 50-year period—as several earlier studies have also found.

• But if you exclude agriculture and its spectacular postwar growth in productivity, it's doubtful whether there has been any acceleration. The BLS report is the first to give separate output statistics for the farm and nonfarm sectors of the economy. Officials admit that in the past they had underrated the impact of agricultural productivity on the over-all total.

• **Two Techniques**—These conclusions have to be so thoroughly hedged because defining and measuring productivity is such an unpleasant and complex task. Basically, BLS has defined productivity as the ratio between output and man-hours of labor. Output is defined, clearly enough, as the value of goods and services, stated in constant dollars, produced by the private economy.

But there are two definitions for man-hours of labor—one used by BLS, the other by the Census Bureau. BLS measures man-hours of labor paid for, Census man-hours of labor actually

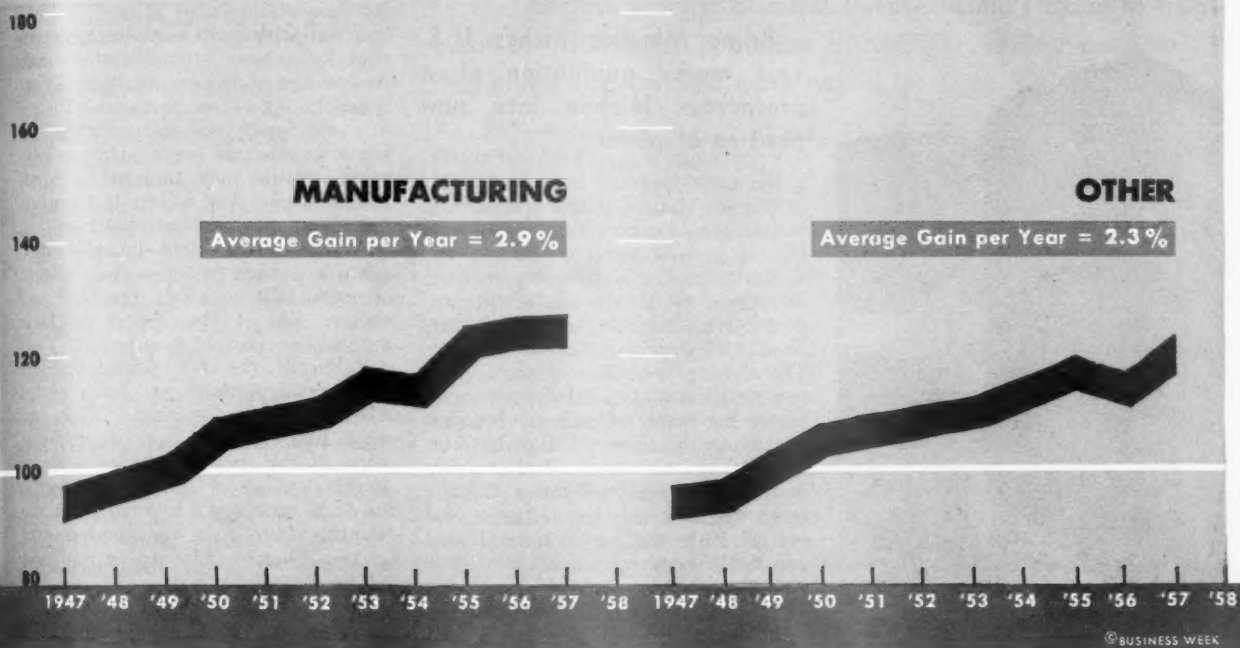
worked. The difference between the two is represented primarily by paid vacations and sick leave.

The Census technique shows higher productivity gains than the BLS approach—which includes the effect on productivity of the postwar increases in vacation time.

In terms of BLS man-hours, over-all productivity in the postwar years increased at an annual rate of 3.1%—or 25% faster than the 50-year average of an annual 2.3%. But in terms of Census man-hours, the gain was 3.5% per year—or 46% better than the 2.4% 50-year average.

• **Acrimony**—The most heated controversy swirls around the question of whether the gain is accelerating, chiefly because labor unions have been seeking wage boosts on the argument that it has speeded up. One member of the Labor Dept.'s Labor Advisory Council, United Auto Workers economist Nat Weinberg, charges that in reporting on acceleration in nonfarm industries the BLS "buckled under the pressure" of the Business Advisory Council. Ewan Clague, BLS commissioner, denies the charge.

The intensity of the dispute is testimony to the value of the stakes, in dollars and cents. "Statistics on productivity trends are crucially important both for the light they shed on the growth



How Fast Is Productivity Gaining?

possibilities of our economy and because of the increasing emphasis placed upon productivity in collective bargaining," says Weinberg.

• **In Accord**—The report by no means seeks to dismiss the acceleration thesis, however. On the contrary, BLS thinks its findings are consistent with those published last summer by the National Bureau of Economic Research (BW—Jun. 20 '59, p. 31). "This study concluded that 'the long-term rate of advance in output per man-hour has speeded up.' It reported a gain of 22% per decade in the 25 years before World War I, 29% per decade since World War I—and 35% to 40% per decade since World War II.

According to the new BLS study, the increase in output per man-hour since 1947 has been 35% by BLS figures and 39% by Census Bureau measurement. In manufacturing, the productivity of production workers alone has been climbing at an average 3.7% per year. Including nonproduction workers in the computation, the figure drops to 2.9%.

• **Defects**—One basic weakness of the new report is that it gives no breakdown between manufacturing and nonmanufacturing industries for the years before 1947. As a result, there is no adequate basis for comparison. But the postwar increase in manufacturing productivity,

while notable, still falls short of some other periods. BLS estimates that the improvement in this sector was an average of about 5% annually during the 1920s, for instance.

Another shortcoming is that figures are not given for specific industries. However, these will appear in the yearly reports that BLS plans to issue in the future.

Some light was shed on this question this week by a study completed for the Committee for Economic Development by Prof. Charles Schultze of Indiana University containing figures for output, costs, and prices in major industries since 1947. Schultze showed that output in six major industries rose at a "substantially more rapid pace than the economy as a whole." The six: construction, durable goods manufacturing, finance and insurance, non-rail transportation, communications, and public utilities.

• **A Matter of Mathematics**—Much of the argument over the BLS report stems from the two possible ways of interpreting the same data mathematically.

The increase in productivity can be shown in chart form either as a straight line or as a curve. BLS chose to present most of its productivity data in the "straight-line method," which shows a constant, not an accelerating,

rate of gain. It describes this approach as the "usual" method. But it does include a section showing mathematical derivations from which a curve can be plotted to show an accelerating rate. Two types of curves—parabolas and hyperbolas—are presented.

A parabola—a curve that shows a rate of gain changing at a constant pace—works out to show a productivity increase of 3.7% in 1958 by BLS man-hours and 3.9% by Census standards. This last figure comes the closest of any to supporting the argument that there has been a breakthrough in productivity since the war—that productivity is now growing at almost 4% a year rather than its prewar 3% or less.

But, BLS notes, different mathematical techniques give different results. Using a hyperbola—a curve in which the rate of gain does not increase indefinitely, but eventually reaches an upper limit—BLS pegs the 1958 productivity increase at 3.5% in BLS man-hours and 3.7% in Census man-hours.

BLS also makes the point that different estimates can be obtained by using different dates. For example, in a study for the Twentieth Century Fund, J. Frederic Dewhurst uses data going back to 1850 that suggests much lower growth rates.

Japan Wins New Global Status



KISHI as head of Japan's government has sought to stay in alignment with the West.



IKEDA as Industry & Trade Minister is exploring trade links with Red China.

Prime Minister Kishi's U.S. visit marks graduation of a prosperous Nippon into new position of power.

For most Japanese, next week's visit of Prime Minister Kishi (picture) to Washington marks a turning point in Japan's postwar history.

Next Tuesday, Kishi will participate in a ceremony that is one of the purposes of his trip—the signing of a revised U.S.-Japanese Security Treaty. The signing symbolizes Japan's claim to a new status—as a full-fledged member of the family of nations. Industrially strong, the country already has won recognition as the main economic power in free Asia. Now, on the diplomatic front, Japan is showing initiative and independence that would have seemed impossible a few years ago.

The new treaty follows closely the pattern of earlier ones between the U.S. and NATO allies. It gives Japan some control over U.S. forces and weapons based on Japanese soil.

• **Resurgent Role**—More important, it caps a series of developments that have thrust Japan, formerly a badly beaten nation, into its new role as a major power in the Far East.

In a West German-type recovery, the country has rebuilt industry and boosted living standards above prewar levels. Exports, Japan's lifeline to prosperity, have soared—with a record \$3.3-billion shipped last year. For the first time in postwar years, the country can boast a favorable trade balance with the U.S., its main customer.

Japan also has tightened its diplomatic ties with the West. The earlier vogue of neutralism is over. The ruling Liberal-Democrats (Conservative), led by Prime Minister Kishi, have stuck to their goal of keeping Japan in the Western camp.

Even rearmament, hotly debated by the opposition Socialists, is under way. Annual expenditures for "self-defense forces" amount to \$400-million. Under present plans, that figure will double in five years.

• **Destination in Doubt**—Though Japan knows where it has come from since 1945, it still feels somewhat insecure about where it is going—or can go. For one thing, it sees potential trouble ahead for exports to the U.S. That's why it hopes to form a U.S.-Japanese economic commission as a followup to Kishi's visit to Washington. For another, Japanese businessmen are worried over the rapid growth of regional common markets—in Western Europe and Latin America.

Thus, trade with Communist countries looks more attractive than ever. As one sign of its new initiative, Tokyo is negotiating a trade pact with Moscow to buy Soviet oil in exchange for Japanese industrial goods. The two-way trade initially may amount to \$140-million yearly. And trade with Communist China may eventually start up.

• **With Yankee Help**—Japan's emergence as a major power in Asia reflects, of course, the country's own skill and energy. But it also hinges—in large measure—on past U.S. support.

Politically, the U.S. helped the Japanese develop what now looks like a relatively stable democracy. The Japanese have modified, or swept away, many of the specific reforms—such as decentralization of the economy—that the U.S. occupation fostered. But the country, in any case, has a new respect for civil liberties. The recent row over extending police powers is one example of this.

• **Economic Aid**—On economic matters, the U.S. launched a highly successful land reform program. It helped free Japanese industry from some of the prewar restrictions that had created a rigidly structured economy. Beyond that, the U.S. has sponsored the move to give Japan a place in the free world "trading club"—symbolized by our insistence on Japanese membership in GATT (General Agreement on Tariffs & Trade). And, along with that, the U.S. has become a giant market for Japanese products.

Most of the old policy squabbles between Washington and Tokyo now have been settled. That's largely the result of Prime Minister Kishi's 1957 visit here. In the past two years, the U.S. has cut its troop strength in half in Japan. It has approved the parole or release of some 80 war criminals. And it has temporarily smoothed the touchy issue of U.S. military control over Okinawa.

• **Prosperity's Impact**—The revised U.S.-Japanese Security Treaty is a new step forward. Japan had regarded the old 1951 security agreement as a one-sided treaty, imposed upon the country as the price for the larger peace treaty ending the occupation.

Still, the average Japanese has ignored most of the treaty debates. That's because of the country's prosperity. By U.S. or European standards, the Japanese live poorly. Yet the last few years have given Japanese a taste for a few comforts they never before have been able to afford.

Millions of householders own electric or gas heaters, instead of charcoal "hibachis." Many farms—after five

record harvests—boast TV sets and mechanical rice-paddy cultivators. And the country's booming electronics industry is coping with the shortage of skilled labor by promising to send new engineers to the U.S. for further training.

• **Socialist Schism**—In response to the increased prosperity, some of Japan's Socialists are lessening their clamor for economic reform. Two weeks ago, right-wing Socialists split from the leftists and pulled almost a quarter of the Socialists' Diet members with them. The right-wingers still want some government ownership of industry, but they don't see this as a cure-all for economic expansion. Actually, in this position, they have moved closer to Kishi's Liberal-Democrats.

• **Flirtation With China**—For Japan, the No. 1 problem in foreign policy is Red China. Japan would like to come to terms with the Peking regime, for both cultural and economic reasons. But Peking has refused—to the point where it broke trade relations with Japan in early 1958 in an abortive attempt to unseat the Kishi government.

But Peking's tactics may be changing. Last fall it invited two top conservatives—former Premier Ishibashi and Kenzo Matsumura—for a six-week tour of China. Industry & Trade Minister Ikeda (possible successor to Kishi) recently broached the subject of Japanese-Chinese trade—though Peking answered with a stern no. And while Kishi himself is taking a wait-and-see attitude on Red China trade, former Trade Minister Takasaki has a mainland trip on his spring schedule.

Meanwhile, the Japanese want to keep what they have got in the U.S.—a broad, growing market. They already have set voluntary quotas on textile exports—a precedent that rival Hong Kong (page 68) may follow. In addition, the Japanese are slowly trying to liberalize the laws governing U.S. and other foreign investments in Japan. And this week they listed import quotas on 437 items. All this aims at forestalling U.S. protectionism.

• **Sharing the Load**—Leading Japanese businessmen accompanying Kishi on his visit here will be searching for some compromise formula to insure the continued high level of U.S.-Japanese trade. At the same time, Kishi will show U.S. officials a proposal for a small Japanese-sponsored "Asian Fund" to help expand exports to India and Southeast Asia. He will remind officials of Japan's huge outlays—amounting to around \$2-billion—for wartime reparations to Asian countries.

By all this, Kishi hopes to convince Washington that Japan is willing to help share the burden of economic aid to underdeveloped countries.

New Buy American Fight

English Electric disputes Baldwin-Lima's claim to treatment as "domestic" producer in turbine bidding on grounds that much of proposed work would be done in Belgium.

U.S. manufacturers, hoping to put themselves on a more even footing with foreign producers, have begun to go abroad for materials and components to compete successfully on a price basis for government business.

Now a foreign company raises the question of whether a U.S. company can go too far in this direction, thereby losing its right to be considered a domestic producer and also losing the 6% price differential American companies enjoy under the Buy American Act.

Forcing the issue is English Electric Co., Ltd. It is protesting a bid by Baldwin-Lima-Hamilton Corp. to supply eight hydro turbines for Glen Canyon Dam, a federal project in Arizona. The English company contends that Baldwin-Lima may not be qualified as a domestic producer under definition of the Buy American Act because more than 50% of its proposed work would be farmed out to a Belgian company. Baldwin-Lima denies this.

• **The Bids**—In the bidding, held in early December, English Electric was low bidder for the eight 155,500-hp., 150-rpm, vertical-shaft hydro turbines. Its bid was \$6,214,552. Baldwin-Lima was second with a bid of \$6,392,000. But Baldwin-Lima was in a position to win the award, since the 6% differential accorded American producers under Buy American, in effect, adds \$372,824 to English Electric's bid.

The Bureau of Reclamation has asked for a 45-day delay in making the Glen Canyon award to enable the General Accounting Office to rule on English Electric's protest.

The use of foreign "sourcing"—subcontracting of work to foreign companies—has been publicized in recent months as a possible answer to many domestic producers' difficulties in meeting the increasing competition from foreign bidders (BW—Jan. 2'60, p66). But if English Electric's protest is successful, the effect could be a curtailment of foreign subcontracting.

• **Heart of Controversy**—The present controversy turns almost entirely on how foreign and domestic costs are defined.

Under the Buy American Act a company may qualify as "domestic" as long as at least 50% of the work is performed in the U.S. Baldwin-Lima claims it has met this criterion. It says only 42.7% of the proposed work on the Glen Canyon turbines would be supplied by the Societe Anonyme

Cockerill-Ougree Seraing, near Liege, Belgium. The remaining 57.3% would be supplied from its own plant at Eddy-stone, Pa., and by the Chicago Bridge & Iron works at Greenville, Pa. The Belgian plant would provide rotating parts and stationary non-embedded sub-assemblies for the Glen Canyon turbines, but it would not supply any spare parts.

In figuring out these percentages, Baldwin-Lima says it adhered to the Bureau of Reclamation's specifications. This calls for deducting from the total bid price certain items before the foreign and domestic work is weighed. These deductions are (1) transportation costs of any products, foreign or domestic, to the installation site from the bidder's U.S. plant, (2) assembly costs at the bidder's U.S. plant of either foreign or domestic products, (3) testing costs at U.S. plants and at the installation site, (4) direct profits, overhead and commissions of the bidder, exclusive of similar foreign costs, and (5) installation costs at the site.

• **Disputed Figures**—These deductions—which serve to reduce the domestic cost—are the target at which English Electric's protest is aimed. Baldwin-Lima claims these deductions should total only \$620,000 in its bid (leaving \$3,306,519 for domestic and \$2,464,881 for foreign work). English Electric contends that the Baldwin-Lima deductions should run at least \$1,560,000.

After the English Electric protest, Baldwin-Lima officials were called in by the Bureau of Reclamation to explain how it arrived at its foreign and domestic percentages. Reportedly the bureau was satisfied with the explanation the company gave.

In commenting on the case, Andrew Liston, sales vice-president for Baldwin-Lima, said: "We tried to satisfy the Bureau of Reclamation and I am sure we did satisfy the bureau. The English Electric complaint is tantamount to saying that we are lying. And they seem to have the ear of someone in Washington."

• **Important Ruling**—The GAO is expected to make a ruling on the English Electric protest within a month. The ruling may go beyond the immediate controversy by setting forth views relating to all bidding procedures under the Buy American Act. And whatever GAO says—while not legally binding—probably will be accepted by the Reclamation Bureau.

Steel Terms Get Second Look

● For the steel industry, it was a pretty favorable settlement, considering past performance. But the smaller companies are bitter about the hold-down on prices.

● For the rest of business, steel's yielding to pressure for settlement is disappointing. Other businessmen had hoped for an example of tough bargaining.

● The new key issues: jobs, seniority, security.

"We're mad, but we're not vindictive."

That's how an executive of a small steel company reacted this week to a question about the settlement reached by industry negotiators and the United Steelworkers, under federal pressure. His company has no choice but to go along with the contract terms, but "We're disappointed," said the official bluntly. "We're saddled with costs that we can't afford as long as our prices stay where they are." The bitterness appears to stem more from the tacit commitment to hold prices through 1960 than from the higher labor costs.

By contrast, top executives of some larger steel companies are inclined to view the settlement in a better light. They emphasize that the outcome for the industry generally is better than they had been able to accomplish in previous postwar negotiations. Also, they claim their settlement is better by comparison than was reached earlier by Kaiser or by the can and aluminum groups.

• **General Disappointment**—Outside the steel industry, relief over the fact of the settlement is tempered by disappointment over the terms.

"Anybody who tells you this settlement isn't inflationary ought to have his head examined," said a manufacturer this week. He's a steel customer.

Vice-Pres. Jack S. Parker of General Electric Co. expressed management feelings in a speech in Los Angeles. He praised the steel industry's "courageous and sincere efforts" to forestall an inflationary wage settlement and said it was unfortunate that the steel industry had to give ground in "sheer inability to resist the fantastic pressures applied against it."

• **What's Inflationary?**—GE's position—the one it will take in bargaining this fall—is that any annual increase in total pay and benefits is inflationary by the amount it exceeds the long-term average annual gain in productivity for the whole economy—which it puts at slightly over 2% a year.

"Even if an individual company or union granting the increase has found ways—through machines, ideas, and people—to increase its own productivity at a long-term rate greater than the national average," Parker said, "wage hikes granted by such a company or industry will spread to other companies and industries which are less efficient, and there will be added inflationary pressure."

• **How Inflationary?**—By GE's test, the steel settlement would be inflationary. The big steel companies concede it is "hardly non-inflationary," and the small ones—with less voice in the negotiations—are much more blunt in their comments.

However, in the view of Administration spokesmen, Vice-Pres. Richard Nixon and Labor Secy. James P. Mitchell, the terms worked out to end the eight-month bargaining impasse need not be inflationary; they should not cause "foreseeable" price increases or have any new upward influence on wages in other industries.

I. Terms in Perspective

Arguments over whether or not the steel settlement is inflationary will go on for a long time. As in most disputes, there is basic disagreement over facts and figures. But 10 days of careful study of the new steel contracts show that management's setback was not as serious as was first thought.

The steel companies gained as well as lost (page 106). Basic wages remain unchanged from July, 1958, the last raise date, to next December. Cost-of-living increases, which steelmen consider a major inflation factor, will be sharply curbed.

Steel management did not do so well as it would have liked to, but it did much better than it did in negotiations in 1956 and other postwar years. It did not stop upward pressures on labor costs in the industry, but it slowed them by at least 50%.

• **Outside View**—Outside the steel industry, sharp criticism is largely due to a

tendency to overestimate the terms of settlement.

By the steel producers reckoning, the settlement is a 41¢-an-hour "package," spread over 30 months. But this is not a 41¢ settlement as employers in other industries are accustomed to figuring it in their own industries.

Labor Dept. analysts say the steel settlement would be better described as 32.8¢ an hour than 41¢.

For one thing, they're inclined to leave out an estimated 5.2¢ cost of incentive, social security, holiday pay, vacation pay, and other increases that will be caused by the higher level of pay effective Dec. 1, 1960, and Oct. 1, 1961. Such costs are generally ignored in totaling the value of a contract settlement.

• **Better, Even So**—Even at its own cost estimates, higher than the government figures or the estimates of the United Steelworkers, the steel industry did better than it had in the past in its fight to hold down costs. Its latest settlement will increase costs an estimated 3.5% to 3.75% a year instead of the 8% a year in other postwar settlements.

If the steel industry had agreed on terms of the Kaiser Steel Corp. settlement, negotiated last October, its costs would have risen about 5%, according to government estimates. This does not mean Kaiser's costs rose anything like that much; costs of its insurance, pension, and other benefits would be less than for the industry as a whole.

If the can and aluminum settlements had been applied in steel, the cost rise would have been 4.7%, Labor Dept. analysts note.

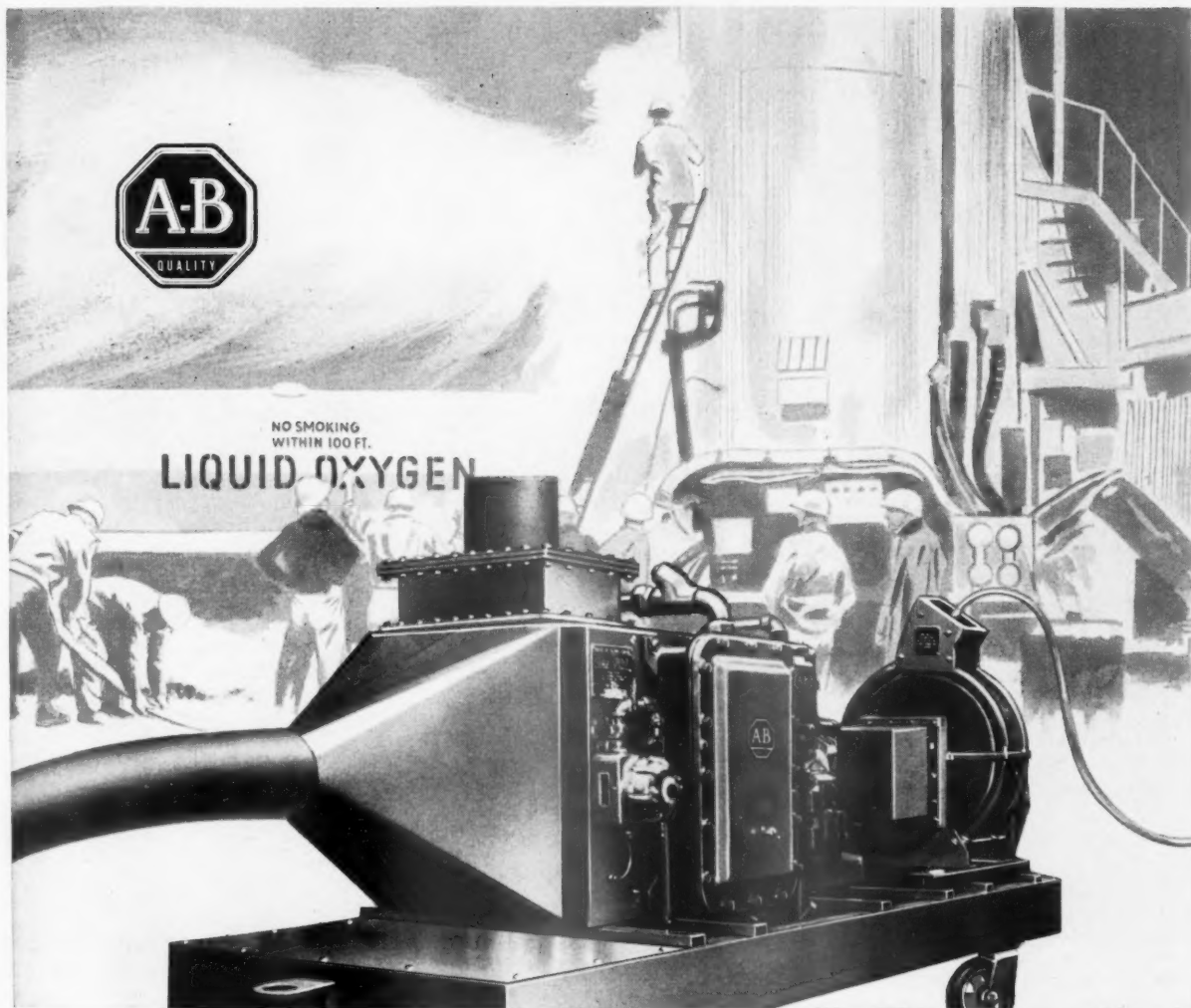
II. Effect Elsewhere

Will other unions lift their bargaining sights as a result of the steel settlement? Right now, the odds appear against it (page 106).

Undoubtedly, management's hopes of taking and holding a bargaining initiative have been set back. All labor is reinforced for harder negotiating in 1960 and beyond.

• **New Issues**—In the steel negotiations just concluded, wages proved to be less of an issue than matters that could affect jobs and security.

It is hard to tell what this might mean for the future. With wages high and held pretty closely in line with prices by escalation, bargaining may switch more and more from pressure for higher pay to negotiations on less tangible, harder-to-compromise questions of seniority, job rights, and the like.



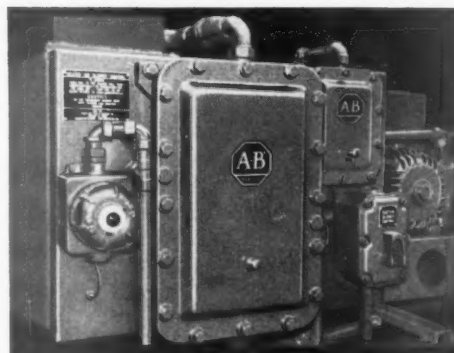
Missile fueling tanks cleaned automatically (Saving 95% of usual time)

Controls by Allen-Bradley, of course

For missiles to be operational, it is vital that the liquid oxygen containers are cleaned and back in service without delay. And this blower—which cuts cleaning time from a period of hours to mere minutes—is an important part of the ground support equipment. It must be reliable, so naturally the controls are Allen-Bradley.

When hazardous locations such as this require bolted enclosures, Allen-Bradley solenoid starters eliminate the time-consuming job of cover removal for inspection and maintenance. Their famous solenoid design—with only ONE moving part—and maintenance free silver alloy contacts assure long periods of trouble free operation—with *no attention whatever!*

Insist on Allen-Bradley—the motor control that gives you bonus life and reliability with minimum maintenance.



This heated air blower, made by West-Air Fan & Blower Co. for evaporating the chemical purge solution from liquid oxygen cylinders, is equipped with three standard Allen-Bradley starters in NEMA Type 7 enclosures.

ALLEN - BRADLEY | Quality Motor Control

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When Computers Take Over

Two new chemical plants are monitored and operated entirely by solid state devices. In a third case, a "foolish" guarantee was lived up to with ease.

Computers for running industrial processes have started the new year with a rush. Last week, two plants—the first in the chemical industry—began operations under computer guidance: B. F. Goodrich Chemical Co.'s vinyl plastic setup at Calvert, Ky., and Monsanto's Luling (La.) ammonia plant. All last year, only a single plant went on stream under control of a digital computer: the Texaco refinery at Port Arthur (BW-Apr. 4 '59, p44).

Monsanto and Goodrich ran a hard, close race for the title of who started up the first computer controlled chemical plant. Both were using Ramo Wooldridge RW 600 computers, small general purpose machines similar to Texaco's.

Finally, Goodrich announced that its computer was running, three days ahead of the Monsanto announcement but suppliers and subcontractors on the plants said the race was a dead heat, for all practical purposes. So far, neither plant is fully shaken down.

• **Full Control**—Monsanto and Goodrich both have designed their installations for full on-line computer control. That means the plants will, in effect, run themselves without human intervention. An operating engineer and crew are on duty for maintenance and for takeover in case of emergency. The instruments that measure what goes on in the chemical reactors feed this information directly to the computer, which compares and calculates the data and then makes any needed changes in the control settings. It does this by changing the set points on the recorder controllers, which operate rather like the thermostat on a home heating installation. The recorder controllers regulate many operations: They measure flows and operate valves, they monitor temperatures and regulate fuel.

When these controllers are set by a computer, the plant runs much closer to its maximum output; no time is lost in taking readings or in making calculations by hand. What's more, even a small increase in the efficiency of a chemical plant can offset the several hundred thousand dollars that a computer installation costs.

• **Making Good**—Computer news of a different sort was made by Daystrom Controls System Div. and Louisiana Power & Light Co. Last year, Daystrom gave a six-month guarantee of 99% availability to LPL on a solid state computer—one that uses tran-

sistors and diodes, instead of vacuum tubes—at a Sterlington (Ala.) generating station. Trade experts thought it was just plain foolish to give such a stiff guarantee on a computer that would log the performance of the generating station and calculate needed changes in the setting of controls—changes that are then made by human operators.

The experts were wrong. After the usual startup delays, the computer began its test run on July 6. The marathon ended last week; the computer had triumphantly scored 99.75% availability, running night and day, seven days a week. It is still running, taking readings from 350 points every 12 seconds.

In the entire six months, the com-

puter was out of operation only 11 hours, and those delays were due to wear and tear on accessory equipment.

• **What It Takes**—The trade believes that this sort of performance can be delivered regularly by solid state computers—performance that is a must in process control. The older vacuum-tube computers—such as those that do scientific calculations and handle business data—ordinarily average a mere 95% availability.

The companies now using control computers are convinced that plant efficiency will be improved. John R. Hoover, president of Goodrich Chemical, predicts that computer control will be adopted widely in old and new chemical processing plants.

Louisiana Power & Light is installing another Daystrom computer, at its Little Gypsy power station; this time the computer will operate, as well as monitor, the entire generating system. Three other utilities are installing Daystrom systems, while General Electric and Leeds & Northrop computers are going into other generating plants now being built.



New Round of Comfort for Chicago Commuters

Forty thousand of Chicago's commuters will get a big break in the next 18 months when the Chicago & North Western Ry. adds 116 new double-deck air conditioned coaches like this one to its already partially modernized commuter service. This week, the road placed a \$21-million order for the coaches and for conversion of 45 locomotives.

By mid-1961 the North Western will have replaced 415 old standard commuter coaches with 200 of the new ones. Despite the reduction, the new fleet will have greater seating capacity.

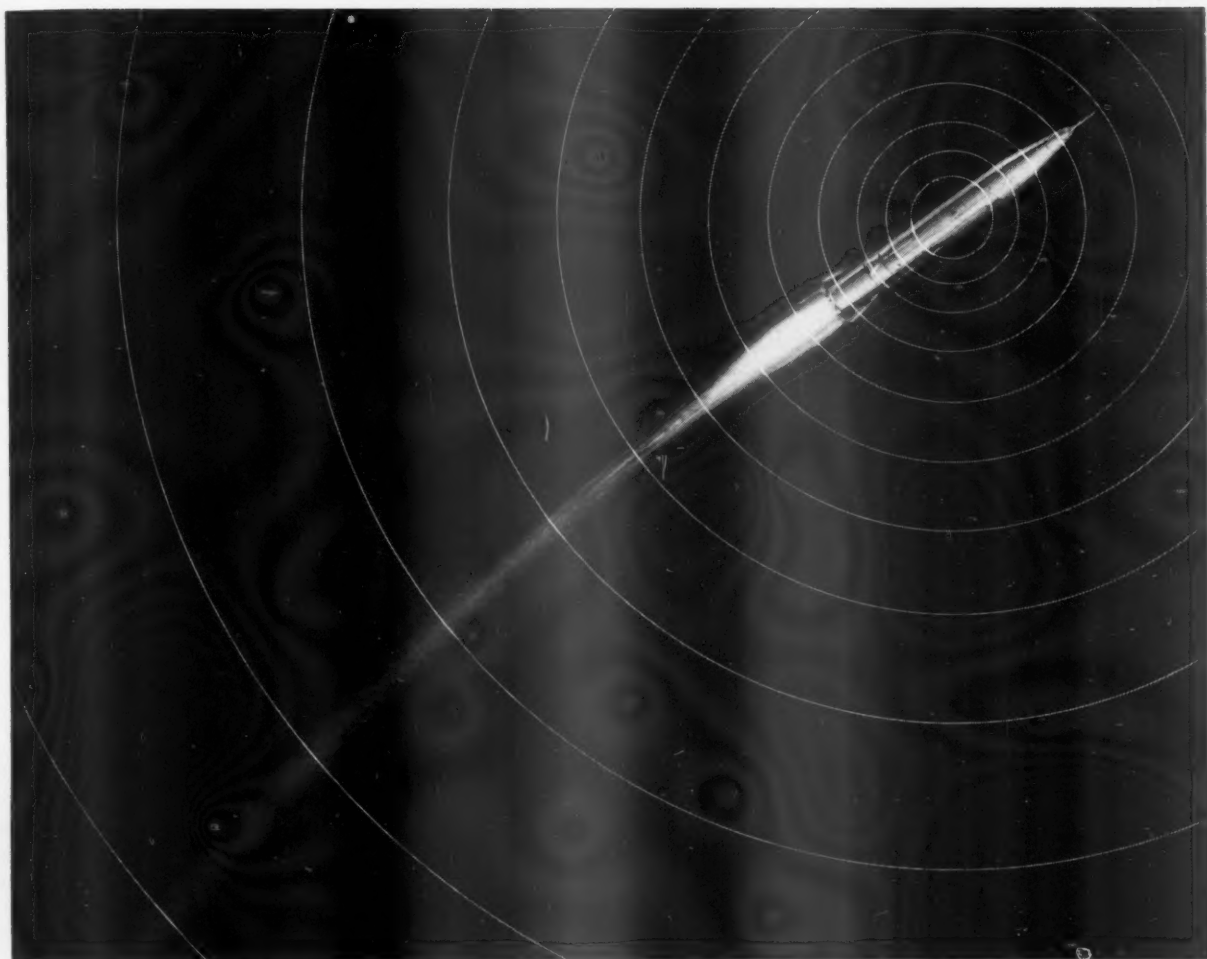
• **Push-Pull**—The new trains provide an extra time and cost cutter. They are operated on the push-pull principle. The locomotive remains always at the

same end of the train saving time and switching costs (BW-Oct. 24 '59, p76).

Changes like these plus revised fares and the closing of many stations within Chicago's city limits helped the North Western break even on its commuter service last year for the first time in more than a decade, says the road's Chmn. Ben W. Heineman.

"We don't intend to get rich from commuter service," he says. "But we do intend to keep it in the black."

All this is a far cry from the crisis that's rapidly developing in commuter service in the East, where the New Haven RR loses \$8-million a year on commuters and threatens to cut service and raise fares 70% if it doesn't get a subsidy by June (BW-Jan. 9 '60, p34).



Things happen fast to a rocketing missile. High-nickel Mumetal shields help tape recorders get it all down accurately.

How Nickel helps record messages from space

When a missile rockets off into space, it detects all sorts of data — temperature, radiation, meteoric dust — the many things we need to know in order to conquer space.

Since radio transmission and reception between missile and ground is not always reliable, some missiles carry an airborne secretary—a multi-channelled tape recorder.

It records as many as thirty different bands of data side by side on a 1½-inch magnetic tape.

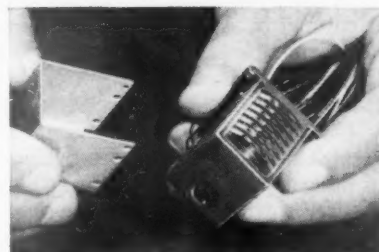
Confusion of all the magnetic fields crammed inside the tiny head could cause messages to come out garbled.

But there is a way to keep them straightened out—by using Mumetal* (77% Nickel). This alloy has the

unusual ability of soaking up magnetic fields like a sponge. Thin, flat shields of Mumetal siphon off troublesome interference.


The manufacturer also covers the whole head with more Mumetal to bar stray magnetic fields on the outside from getting inside. And then a protective Nickel-chrome plating goes on top of that.

All in all, it's quite a job Nickel does. And something to keep in mind the next time you're faced with a problem in your product or process. If it has to do with high or low temperatures . . . magnetism . . . corrosion . . . fatigue or some other factor, write us. We'd be happy to show you how Nickel, or one of its alloys, may be able to help.



Tiny magnetic head of tape recorder has Mumetal shields to trap magnetic interference, help Davies Lab. Division of Minneapolis-Honeywell pack much in little space. Nickel-chrome plating on cover adds durability, corrosion resistance, and attractive appearance.

*Trademark, Allegheny Ludlum Steel Corporation

The International Nickel Company, Inc.
67 Wall Street  New York 5, N. Y.

INCO NICKEL

NICKEL MAKES ALLOYS PERFORM BETTER LONGER

In Business

• • •

Pratt & Whitney, Leesona to Combine Efforts in Whole Field of Fuel Cells

United Aircraft's Pratt & Whitney Aircraft Div. is expanding its research arrangements with Leesona Corp. to cover the whole field of fuel cells. Hitherto, the cooperation has been limited to the Hydrox fuel cell, which uses hydrogen and pure oxygen.

The new effort will be directed to the Carbox fuel cell, which burns low-cost hydrocarbons such as propane or kerosene, with ordinary air as the oxydizer. Chemical and electrochemical research will be handled by Leesona and National Research Corp., of London, which have been working on the Carbox cell for months. Pratt & Whitney is scheduled to handle both manufacture and sales.

Because it burns its fuel in ordinary air, it has possibilities in industrial power generating, vehicles, and electric welding. Allis-Chalmers was the first to demonstrate a propane-burning fuel cell (BW—Oct.17'59,p33).

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Rockefeller Urges Non-Property Taxes For Schools, but Opposition Grows

The idea of non-property school district taxes on a larger scale is getting another whirl as a main point of Gov. Nelson A. Rockefeller's message opening the New York legislature. But even before the details of his plan have been spelled out, local school boards are attacking the idea as an evasion of the state's primary responsibility for education.

In New York, an average of 40% of local school costs is covered by state aid from the general fund; the rest is largely met by local property taxes. Other states provide from 5% (Nebraska) to 85% (Delaware) of public school revenues.

The burden on local real estate taxes, which is acute enough to play a part in defeat of an increasing number of budgets and bond issues, can be eased only by a rise in state aid or by tapping new sources of tax revenue. New York and a dozen other states already permit school districts one or two other types of tax, but the right is little used. Only Pennsylvania permits school districts to levy a broad range of non-property taxes.

• • •

Russia Tries to Sell Watches in U.S., Trade Finds Them Worthy, Dowdy

The Russians are trying to sell wrist watches in the U.S., but Americans aren't trampling each other to get to the store.

Amvorg Trading Corp., a Soviet agency, is seeking dis-

tributors and has run several newspaper ads. It has received some inquiries but no solid takers.

The Russians are offering a line of six "ladies' and gentlemen's" models, with 15 to 17 jewel movements. Prices are about \$6 f.o.b. New York, or less than \$20 at retail.

A U.S. company has tinkered with a Russian watch for two weeks and reports that the workmanship and movements are very good but that "it's a clunker in appearance." Even the U.S. watch industry, usually quick to protest foreign incursions, hasn't pounded the desk in Washington.

As to Soviet motives, they hope to show interest in expanding peaceful trade. And Russia probably has surplus production since the watches are too expensive for wide home sale.

• • •

"Skin" Modeled on the Porpoise's May Bring 60-Knot Speed for Subs

Submarine speeds up to 60 knots may result from an idea of a scientist who wondered why porpoises can swim so fast with so little effort. The scientist, Dr. Max O. Kramer, of Coleman-Kramer, Inc., developed a theory on anti-turbulence; U.S. Rubber then devised coatings that, in motorboat tests, have been astonishingly successful.

An object moving through water uses 70%-90% of its propulsive energy to overcome the drag due to turbulence created by the water resistance. But a porpoise-like skin overcomes the turbulence. For a boat, the skin is a thin layer of rubber separated from the hull by thousands of tiny rubber props, past which a thick liquid runs freely. When turbulence occurs, the liquid moves automatically to counteract it, and you get what is called "boundary layer stabilization"—and little or no drag.

Small surface ships, submarines, and torpedoes can profit immediately from Kramer's find. Scientists also think the idea has promise for missile, rocket, and plane applications. One industrial use looks good: using skins in pipes that carry liquids.

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Business Briefs

To celebrate its 20th birthday, McDonnell Aircraft Corp. will give \$100,000 to each of three universities. Originally, the company planned a huge celebration; then it decided it would be wiser just to give the money away. . . . The Johnson Foundation (Johnson's Wax) has given \$15,000 to start an Institute of World Affairs Education at the University of Wisconsin's Milwaukee branch.

American Export Lines and the Federal Maritime Board have signed a 20-year subsidy contract that will enable the line to replace 22 ships at an estimated cost of \$436-million.

St. Regis Paper Co. is selling its Canadian interests in multiwall bags and packaging to Montreal's Consolidated Paper Corp., one of the Canadian newsprint big three. The price: \$1.6-million, plus 785,000 shares of CPC.

The Solid '60 Plymouth Fleet Special—a natural for really economy-minded fleet buyers. Four low-priced Special models cost appreciably less because they include only the items buyers really want. These new Plymouth Fleet Specials also give good economy and good resale value.



They're low in original cost.

These Plymouth Fleet Specials—2-door and 4-door sedans, 6's and V-8's—are priced competitively with any fleet car in their class. Yet they keep the solid fundamentals while eliminating unnecessary trim. Long-lasting features like tough, durable Vinyl interiors and heavy door trim panels are examples of the rugged standard equipment on these four models.

They have a new 6-cylinder engine or a V-8. Both give good economy.

Plymouth's new 145-horsepower 30-D Economy Six engine is built a new way. For economy it rivals sixes with 30 to 70 less horsepower—yet we think it is the best performing six in its class. Thoroughly tested and proven, this engine is easy

to service, too. As for the Plymouth Fury V-800 engine, in its class, it won the Mobilgas Economy Run three times in a row. And it's more economical than ever in '60.

They allow low upkeep costs and give good resale value because they're built to last.

Every Fleet Special is built a new way—the solid Dura-Quiet Unibody way. Approximately 5400 precise welds join heavier steel of body and frame into one sturdy, solid welded unit. This lets you keep the car longer and you can expect higher resale value when you trade or sell. There's also exceptional protection against body rust with seven different protective baths and six special chemical sprays.

Stop in today and talk with your nearest Plymouth dealer—there's no obligation.

A Chrysler-engineered product, built a new solid way to give you solid satisfaction.

SOLID PLYMOUTH 1960



MORALE

Morale goes up... costs down...
when workers are seated in **GF** Goodform chairs

"Improved working comfort", says Dr. Richard Wallen, industrial psychologist of Personnel Research & Development Corp., "can be accompanied by an increase in worker productivity. When fatigue no longer leads to time spent away from the desk, workers will be more efficient. Properly planned and engineered equipment can decrease costs."

An excellent way to boost morale and increase productivity in your office is to select Goodform chairs. They provide maximum comfort because they're adjustable to each user, regardless of size

or weight. Goodform chairs are products of General Fireproofing — manufacturers of the world's most complete line of business furniture. GF also offers complete planning, design and decorator services that take into consideration, not just space utilization and work flow, but the many human factors that make for efficiency.

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
JAN. 16, 1960



The coming Congressional fight about defense spending promises to be somewhat noisier than such affairs in the immediate past. There are signs that it may blow up into the hottest thing of its kind since the angry Navy-Air Force row a decade ago over the B-36 bomber.

One big fact to keep in mind:

Pres. Eisenhower can have his way, hold spending to \$41-billion in the defense area. Democrats, eyeing that anticipated \$4.2-billion surplus forecast for fiscal 1961 (page 17), may vote more money for missiles, for space exploration, and even for manned aircraft. But Eisenhower can beat them with a veto, or by the even more simple expedient of merely choosing not to spend any gratuitous appropriation.

The White House tries to deflate defense as a political issue, nevertheless. Eisenhower is budgeting a 30% increase in intercontinental ballistic missile deployment during the next few years, raising the goal to 13 Atlas and 14 Titan squadrons instead of nine Atlas and 11 Titan units. The new budget also includes funds for beginning three more Polaris-firing submarines in the immediate future, a step to fulfill in a bigger hurry the over-all goal of 40 or so in the next 10 years.

But Democrats won't be mollified. The dual hearings—by Sen. Lyndon Johnson and Rep. Overton Brooks—on the space-missile "lag" will try to document the Democrats' case for more spending, more effort. And the fact that the new missile-submarine plans will be paid for, in large measure, by the practical abandonment of the 2,000-mph. B-70 bomber project will add to the outcry.

The prospect when all the furor dies down, however, is that defense contractors will wind up with no more Pentagon business and Democrats will have to console themselves with whatever gain they can make out of a campaign thesis that the Eisenhower Administration is letting the nation slip toward the rank of a "second best" power.

—•—

A fresh look at the Democratic Presidential scramble:

The next big break in the melee may occur in California, where Gov. Pat Brown plays it cozy with a tantalizing plum—the state's 81-vote delegation to the nominating convention.

Sen. John F. Kennedy is applying heat. He pressures Brown for a deal, in which the governor would declare as a "favorite son" candidate pledged to Kennedy. There is an implicit threat that, if Brown resists, Kennedy will enter the California preferential primary in opposition to the governor.

The big question is whether Brown—who has virtually eliminated himself as a serious contender for the nomination—feels sure enough of his home popularity to withstand the threat of possible embarrassment in a "beauty contest" with a national figure from the outside. Gov. Mike DiSalle in Ohio did not, and that is how Kennedy bagged a DiSalle pledge for Ohio's 64 convention votes.

Look for important clues on California next month. A convention of California Democratic clubs meets Feb. 13 in Fresno, and a showdown could come then. If Brown resists Kennedy and if the Massachusetts senator enters the California primary, then a merry hoedown is assured for the June 7 primary. Sen. Hubert Humphrey of Minnesota is poised to leap in under such circumstances.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
JAN. 16, 1960

Washington's mid-winter book on the Democratic lineup:

Kennedy is the front man for the time being, should go to the convention in July with 400 to 500 delegate votes. Nomination requires 761. Delicacy of the situation for Kennedy, a Roman Catholic, is underscored by the fact that his camp takes encouragement from Illinois Democrats' choice of a Protestant candidate for governor—the theory being that it would be politically hazardous to ask voters to approve a Catholic for both governor and for President. Some practical politicians, however, say this merely illustrates anew the idea that it would be risky for Democrats to nominate a Roman Catholic for the Presidency in 1960.

Humphrey of Minnesota, aside from Kennedy the only announced Democratic candidate, figures to round up 150 to 200 delegate votes in advance of the convention. His chances, not rated bright, would improve if he could knock off Kennedy in an important primary—say Wisconsin or California.

Sen. Lyndon B. Johnson of Texas will have 300-odd first ballot votes, mainly from the South, some of the border states, and perhaps some of the smaller Western states. There is little prospect for him to get much more, but he will be able to speak loudly in the back room trading sessions where the candidate eventually will be picked.

Sen. Stuart Symington of Missouri, the man Kennedy professes most to fear, gathers new respect as a darkhorse candidate. His rivals say Symington has strength that cannot be gauged accurately now, consisting mainly of party pros who see no need to take political bruises by getting involved in an open fight until they're forced.

Adlai E. Stevenson of Illinois is, and probably will continue to be, the coylest of the Democratic crop. But top Democrats hereabouts feel that Stevenson, if asked to take the nomination, will say yes in a hurry. And there's strong belief here that is just what will happen in the windup of the Democratic race this summer.

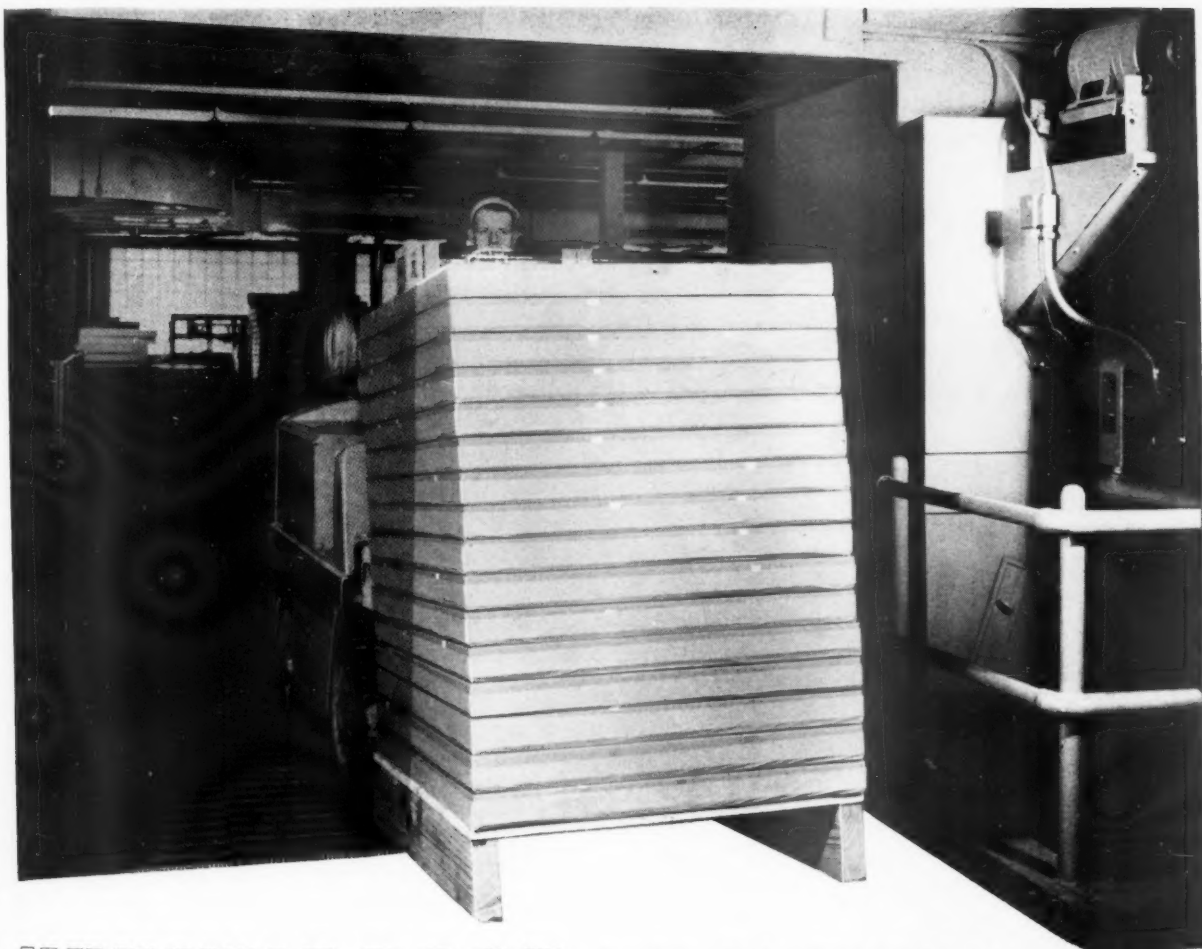
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The Republican lineup on the House Ways & Means Committee undergoes a reshuffle due to the death last week of the top-ranking GOP member and ardent protectionist, Rep. Richard M. Simpson. This is, of course, a key committee.

Noah M. Mason of Illinois becomes the ranking Republican on the important committee which originates all tax and tariff legislation. He refers to himself as a "parsimonious, tight-fisted Middle Westerner" and often battles with the Eisenhower Administration about such things as foreign aid, which he deplores, and U. S. participation in international financing enterprises, which he distrusts. Mason is 77 years old, and is a 22-year veteran of the House.

The man to watch: Rep. John W. Byrnes of Wisconsin. He ranks second to Mason on the GOP side of the committee. On such questions as foreign aid, Byrnes has differed with Eisenhower in the past. But he is regarded as more of a "regular"—that is, amenable to party discipline in close vote situations—than either Simpson or Mason. He may be the key when tough battles come up.

The Administration will bypass Mason, rely on Byrnes to be the chief GOP spokesman in the House on tax and fiscal matters. He is 46, and has been in the House 16 years. Among his current political assets is a close friendship with Vice-Pres. Richard M. Nixon. This could be very important in this session.



INVISIBLE DOOR lets lift truck through!

It's the American Air Curtain Door at the Taylorville, Illinois, plant of the Hopper Paper Company. It's open to personnel and equipment... closed to dust, dirt, humidity and temperature changes that could affect the controlled atmosphere of the paper storage area it protects. And, a Wagner motor helps make sure it stays closed.

Actually, the door is a moving current of air that serves as an insulating wall. A Wagner Type DP

polyphase motor powers the blower used in this air curtain installation... keeps it working day-in and day-out... makes certain the air circulates as it should to keep the door closed tightly.

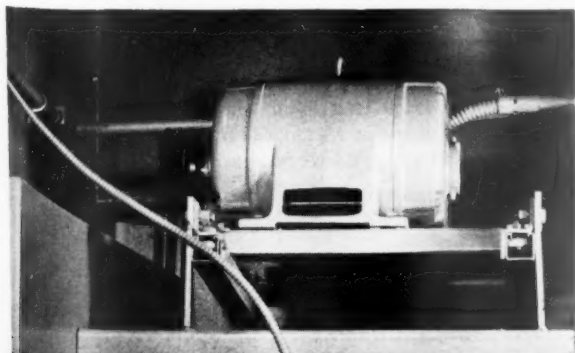
An unusual application? Yes, but there's nothing unusual about the motor's dependable performance. All Wagner Type DP polyphase motors give users the continuity of service they want plus the double protection of rugged, corrosion-resistant cast iron frames and dripproof enclosures.

What about your motor requirements? For an analysis, call your nearby Wagner Sales Engineer. (There are Wagner branches in 32 principal cities.) He'll recommend standard or specially-built Wagner motors that will serve your needs. And they will serve well, for more than 65 years of constant research and development have made Wagner a leader in electric motor design.

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Your family can't get across on part of a bridge

The average man has a wife and two children to support. And not a lot of income left over at the end of the month. Should he die, what would happen to his family? What income would they have?

What part of your present income would *your* family get? What part would your Social Security, insurance and other assets provide them? Would they be able to make out?

They cannot live on half a meal, drive a piece of a car, pay part of the utility bills. They cannot buy half a pair of trousers, make do with one shoe.

In short, they cannot cross the years on part of a bridge. What minimum income would your family need? What exactly would they get? What can you do about it? Ask an expert—your Metropolitan Man.

He can help you analyze your situation and will chart a program tailor-made for your family's special individual protection. Best of all, the cost may well be less than you expect.

Your Metropolitan Man works today with the widest selection of policies in Metropolitan's history, with the newest and most flexible provisions and benefits.

He can help you if you let him. There never was a better time. Call him now.

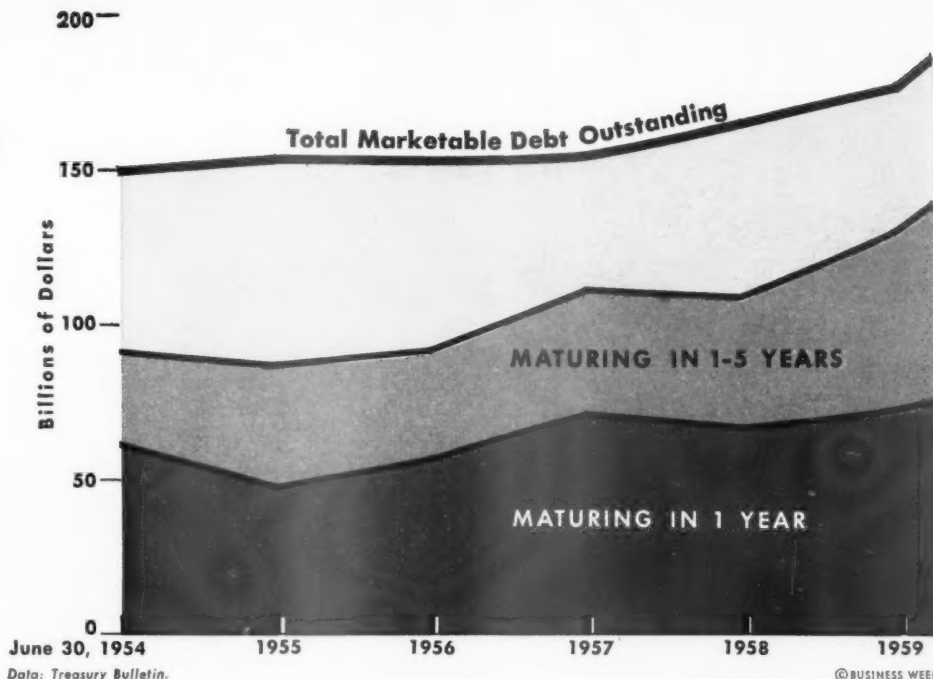
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FINANCE

The Treasury's \$140-Billion Headache



Too Much Comes Due Too Soon

That's the financing problem afflicting the managers of the national debt, forced by the 4¼ % interest rate ceiling on long-term issues to deal only in short-term obligations.

Despite Pres. Eisenhower's assertion last week that the federal budget for the fiscal year beginning next July will show a surprising \$4.2-billion surplus, the Treasury's financing problem is as serious as ever.

The problem, however, has changed since a year ago. Then the Treasury had to make up a recession-born deficit of \$12.5-billion. It did this by placing obligations in the hands of non-bank investors, chiefly manufacturing companies that were building up cash reserves. These customers were preferred because selling debt to commercial banks would have been extremely inflationary.

This time, there is no deficit. In fact, the Treasury will be able to reduce the national debt during the next six months by at least \$6-billion, officials estimate, because this is the season when revenues far exceed expenditures.

• **Heavy on Short Terms**—But the Treasury is still deeply in trouble because it has to do all its financing and refunding in short-term issues, maturing in five years or less. The Treasury is prevented by law from selling long-term obligations, maturing in more than five years, at more than 4¼ in-

terest. Since last March, when long-term rates rose above that figure, it has been forcibly confined to short-terms.

The result has been a steady drop in the average maturity of the debt—now 52 months, compared with 57 months last March—and a big buildup in debt maturing in less than one year and in one to five years (chart, above).

Even more important, the Treasury has had to pay a higher and higher price for its borrowing. Because it has saturated the short-term market, it has had to offer increasingly attractive yields to get funds. Last week, for example, on an issue of six-month Treasury bills, it had to pay more than 5%—well above the rate available on outstanding long-term bonds. This week it is auctioning an issue of one-year bills on which it will be paying over 5%.

• **Higher Still**—The prospect is that the federal financiers will have to pay even higher rates on short issues—widening still further the spread between them and long-term rates. The Treasury is already in direct competition with the nation's savings institutions, particularly mutual savings banks and savings and loan associations. The higher it

pushes its interest rates, the more funds it will tend to lure out of these institutions, which provide a good part of the financing for residential construction.

Thus, the Treasury's success in attracting funds will probably pinch the housing industry—which is already hurting—still more. At worst, it could also bring a big enough rise in over-all interest rates to slow the general level of business. At best, it would make the average age of the national debt still shorter—and therefore an unstabilizing influence on the economy as a whole and the money market in particular.

• **Congressional Nay**—To cope with the problem, Eisenhower last June asked Congress to remove the 4¼ % ceiling. The request was turned down after a bitter political hassle. Many Democrats opposed the proposal because they didn't want even partial responsibility for higher interest costs.

The President renewed his request in the State of the Union message last week, and this week made it his first special message. But the Democrats look on tight money as a made-to-order issue for this fall's Presidential campaign; they won't lift the ceiling unless the Administration makes some concessions in the direction of easier money—for housing, especially. And this seems unlikely.

• **Little Choice**—So the Treasury is forced to do all its financing short-

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Now Air France Boeing 707 Intercontinental Jet revolutionizes Air France's cargo service to Europe. It's the world's fastest, largest, longest-range jetliner. And it means you can speed cargo consignments to Paris in only 6½ hours non-stop daily from New York*... *twice as fast as before!* The Intercontinental has *triple the cargo space, too!* The 1700-cubic-foot cargo holds take over 4 tons of cargo—extra-large loading doors accommodate at least 75% more shipments of various sizes and shapes. Shipments receive immediate attention at Orly from special cargo crews. Specify your next consignment "Jet Cargo" on the world's largest airline. Air France speeds cargo to more cities in more countries than any other airline.

*Service begins at the end of January.

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term. Since it has already been confined to this area, it will be coming to market to roll over maturing issues increasingly often. In the next six months, the Treasury will have to refund some \$55-billion; of the more than \$86-billion coming due in the next 12 months, almost all must be refunded. "We won't have much time to catch our breaths," comments one market man.

The Treasury recognizes the gravity of its plight. One high official says the possibilities for debt reduction in the next two years are largely offset by the "dangerous build-up" in one-to-five-year maturities. The \$65-billion in this range is "already about \$25-billion higher than it ought to be," he says.

In fact, the Treasury is much more worried about these issues than it is about obligations maturing in less than a year, which make up about 40% of the marketable debt. This percentage has stayed fairly constant in recent years, and the Treasury contends that a lot of short-term obligations are needed to meet the liquidity of the economy. "If the Treasury didn't furnish them," says one official, "somebody else would have to."

• **Mind Changing**—A few years back, the Treasury had a different view: It was all for reducing the shortest-term debt. Now it is worried most about the intermediate area. This may be a rationalization of its predicament, but, on the other hand, the Treasury has not been completely the victim of circumstance.

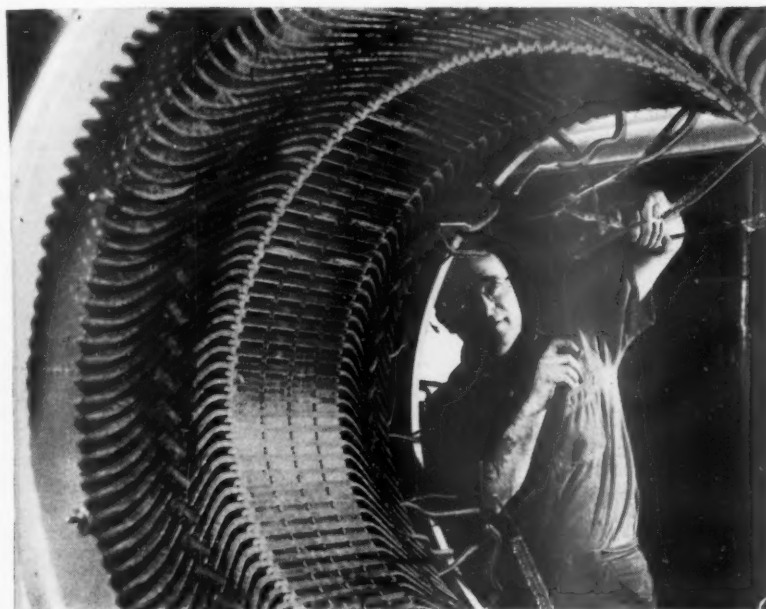
Some progress has been scored in the short-term area over the past year. The Treasury has systematized its bill offerings, with a weekly 91-day bill auction plus a regular schedule of six-month and one-year bills. In effect, this has settled the market—at the price of higher rates.

But the one-to-five-year period has gone untended, and it's questionable how many more obligations can be offered in this area before the market rebels. Last October, the Treasury priced one of its intermediate issues at 5%, and the "magic fives," alluring individual investors in record numbers, were a big success. But most market professionals doubt that any substantial amount of new funds can be attracted in this area without even higher rates.

• **Point of Saturation**—There's no telling just where the market's saturation point is—in either the short or intermediate areas. In the recession of 1958, frequent offerings of long-term bonds tended to overload the long-term market and thus contributed to the steep decline in bond prices and rise in yields. The immediate danger now has shifted the one-to-five-year area.

Bills seem fairly safe. The Treasury expects nonfinancial corporations to be

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Chances are you've heard of the current revolution in electrical equipment . . . of outdoor motors stripped of weatherproof housings . . . of motors that laugh at overloads . . . of smaller, lightweight transformers that put power right where you want it.

These developments typify three phases of today's growing trend toward electrical equipment that's more reliable and easier to install . . . less expensive initially and in the long run.

Phase I — Self-Protecting Insulation Cuts Motor Costs

Motors need no costly enclosures . . . even outdoors . . . when they've got self-protecting insulation systems. The insulation system itself, when made with Silastic®, the Dow Corning silicone rubber, shrugs off weather, humidity, corrosion . . . is no longer the "weak-link" to be coddled. Result: There's no need for the elaborate enclosures that push motor prices out of sight. Open motors do the job — costs are cut as much as 50%! Proof: One firm saved \$28,000 on only three motors by specifying silicone insulated open motors rather than totally-enclosed fan-cooled units.

Phase II — Increased Service Factor Motors Reduce Power Costs

Motors with insulation systems that don't get "burned-up" when asked to carry overloads . . . that's one way of describing motors built with Dow Corning Silicones for extra service factor. When the going gets rough and production schedules are critical, they carry overloads of twenty-five to fifty percent beyond nominal rating . . . without distressing smoke

signals. And though they deliver more horsepower when needed, they're still no bigger than their conventional counterparts . . . have the same nameplate horsepower rating. Result: You specify motors to match load, let silicones carry the overloads. No need for larger, more expensive motors just to handle occasional overloads . . . and you gain in reliability, too.

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New dry-type transformers insulated with silicones contain no toxic or flammable liquids. They're smaller, lighter . . . don't require expensive vaults or barriers. Result: Silicone insulated transformers are easier to handle, easier to install, can be located right at load or load center, need almost no maintenance. They save on costly low-voltage cable, too. You get greater flexibility of the distribution system and cut costs at the same time.

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This Euclid Model C-6 Crawler is cutting a drainage ditch on a private logging haul road in the Pacific Northwest. It's a tough job that requires big power and fast response to the operator's controls, and a mighty important one because the big log haulers have to have good roads to move their huge loads out of the woods.

Although it's the newest model in Euclid's line of modern earthmoving equipment, the C-6 has already gained wide acceptance on every kind of tractor job in logging, mining, construction and industrial work. No other Euclid product has had the pre-production testing—both on the proving grounds and on actual jobs—that the C-6 has undergone during the past 5 years. With its proven Torqmatic Drive, full-power shift, and fast, positive response, Euclid's new concept of tractor design sets a new standard for crawler performance.

Users of heavy earthmoving equipment all over the world have found that Euclids are the best bet for high productive capacity and better return on investment. The dealer in your area will be glad to give you facts and figures on "Euc" crawler tractors, scrapers, front-end tractor shovels, rear-dump and bottom-dump haulers.



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in the market for bills, to offset increasing tax liabilities, and a lot of individuals are coming into the bill market. Some are refugees from the uncertain stock market; others are primarily savers, attracted by the high yields. Banks report a very heavy individual demand for this week's offering.

There's much less assurance about issues maturing one to five years ahead. Individual investor demand may rise, but few corporations are willing to tie up their money for more than a year in advance.

• **Surplus Helps**—In the long run, the Treasury hopes that its anticipated surplus will stabilize the market. Even if the economy should start to decline by early 1961, as many economists are now predicting, revenues for the fiscal year should flow in pretty much as estimated, since they will represent taxes paid on a prosperous 1960.

In the short run, though, there's no easy way out. The interest rate ceiling allows no flexibility, and so far the Treasury has said "lift the ceiling or nothing."

However, some compromise might be possible. One proposal is to let the Treasury sell long-term bonds at deep discounts, in line with yields prevailing in the open market. Under wartime legislation, the Treasury has the power to price issues at a premium or a discount, but officials have never used it for long terms and say it would be unfeasible. There's also some talk of making Treasury issues tax-exempt like state and local government issues. But the Treasury's entry into this market would probably wipe out the tax-exempts' already narrowing yield advantage and make borrowing much more expensive for state and local governments.

The Treasury might accept one suggestion—to lift the 4½% ceiling only on advance refundings, when the Treasury rolls over debt well before final maturity. The Treasury has already said it would take advantage of a lifted ceiling for refundings only anyway. However, there's little support for this scheme in Congress.

• **Step Refunding**—In the unlikely circumstance that Congress acts on the rate ceiling, the Treasury hopes to lengthen the debt in a manner that won't disturb the money market. Officials call the technique "step refunding"—a series of advance refundings that up-grade short-term debt into intermediate maturities, intermediate maturities into long-term debt, and so on.

Above all, says the Treasury, it wants its new obligations to appeal to the savings institutions—such as life insurance companies and pension funds—that have been shunning governments in recent years. "All we want," one of the top debt managers says, "is our fair share of the savings dollar." **END**

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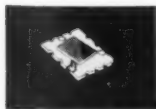
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5, 1960



Computers that fit in a briefcase?

The progress in miniaturization of electronic components now going on at Mallory may soon make it possible to shrink a computer so small that it would take no more space than a briefcase.



For example, the tiny wafer shown here is a micro-miniature counterpart of components dozens of times its size. You can pack half a million of these new components into a cubic foot. A radio might become the size of a lady's wrist watch. A television circuit might fit in a frame around the picture tube.

Mallory developments in micro-size electronic com-

ponents have already helped make possible transistor radios, pocket tape recorders, inconspicuous hearing aids, radio transmitters in satellites. And they are ready now to bring the exciting future of miniature electronics to reality much sooner than you may realize.



In Finance

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Grace Sells Interest in Libyan Oil; Offers to Buy Cosden Petroleum Stock

W. R. Grace & Co., which has been expanding rapidly in the oil and chemical fields, figured in two big deals this week:

- Together with Libyan-American Oil Co., a subsidiary of Texas Gulf Producing Co., Grace sold an undivided one-half interest in three Libyan oil concessions to Esso Sirte, Inc., a subsidiary of Standard Oil Co. (N.J.)

- Grace revived its interest in Cosden Petroleum Corp. (\$90-million-plus in sales and \$63-million-plus in assets) by offering to buy about \$40-million worth of the Texas oil company's stock from investors.

Back in mid-1956, companies called off a proposed merger, approved by their boards and shareholders, when an independent survey showed Cosden's reserves to be 1-million bbl. less than the amount called for by the merger terms. Since then, however, Grace's interest in petrochemicals has developed fast. It wants Cosden, which is active in this area, to complement its oil production activities.

What Grace is proposing to do now is to buy 1,580,000 Cosden shares, out of 2,749,000 outstanding, at \$25 a share, with the offer to end when the stock is all tendered or on Feb. 11 at the latest. If more stock is tendered by Jan. 20—the earliest cut-off date—the purchase will be pro-rated; if less is tendered by Feb. 11, Grace reserves the option to buy it. Cosden says the offer is fair, and its two top officers will tender 33,000 shares—or 50% of their holdings. Cosden's stock moved up after the news broke from \$20 to \$23.75.

Standard Oil Co. (N. J.), one of whose subsidiaries figured in a deal this week with Grace, also moved to tie together its Latin American operations when one of its affiliates, Esso Standard (Inter-America) offered to buy the publicly held stocks in another affiliate, International Petroleum Co., Ltd. Price tag is \$45 a share for the 470,000 outstanding shares—Jersey Standard owns the other 96.77%. After the report, International's stock moved up from about \$31 to \$44.50. This move is apparently aimed at coordinating all of Standard's foreign operations.

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H. L. Green Management Hits Back As Gluck Moves to Unseat Board

H. L. Green Co.'s management this week attacked Maxwell H. Gluck's attempts to unseat Green's present board (BW—Jan. 9'60, p72). Gluck, now a holder of 4,500 common shares, charges Green management with losing millions of dollars in the company's 1958 merger with Olen Co., Inc. He is seeking proxies for a special stockholders meeting.

Joseph H. Unger, Green's president, accused Gluck of trying to unseat the board's members because they refused to sell him shares of Green. "We believe he now wants to remove the board, elect a management of his own choosing, and negotiate a stock purchase with that new management," Unger said.

Management also defended its \$1.6-million out-of-court settlement with Maurice Olen, former Green head facing trial on charges of securities violations. It said, in a letter to stockholders, that "recovery against Olen, through a lawsuit, would be long, tedious, and expensive; and that doubt existed as to collectibility of any judgment that might be rendered against Olen."

• • •

Cities Service Finally Makes Offer Acceptable to Arkansas Fuel Holders

Cities Service Oil Co. ended two years of wrangling this week by agreeing to pay \$41 a share—a price proposed by minority stockholders—for the 48.5% of Arkansas Fuel Oil Corp. stock that it doesn't already own. (Arkansas Fuel Oil traded this week at \$37.50.)

In 1957, the Securities & Exchange Commission ordered Cities Service either to sell its interest in Arkansas Fuel Oil or to buy out the minority holders if it wanted to escape regulation as a public utility holding company. Until now, Cities Service wasn't able to work out a deal that minority holders would accept.

Last year, Cities Service offered stockholders in Arkansas Fuel Oil one share of its own stock for roughly 2.4 shares of Arkansas stock. In terms of market value, this would have meant some \$25 per share for the Arkansas stockholders, and minority stockholders vigorously resisted the offer.

Then last fall, General American Oil Co. of Texas—backed by the Prudential Insurance Co., which was willing to lend GAO the bulk of the funds it might need—stepped into the picture with an offer to buy the stock interest for \$40 a share. At SEC hearings last week, Cities Service matched that offer, and went \$1 higher following discussions with a committee of minority stockholders regarding claims and counterclaims on certain transactions between the two companies.

• • •

Finance Briefs

Investors cashed in \$454-million of the Treasury's E and H savings bonds last month, and bought \$377-million—a net drop of \$77-million despite the fact that interest rates were hiked from 3½% to 3¾% in late September.

The Justice Dept. won a significant antitrust victory this week in its battle to block Firstamerica Corp.'s acquisition of the California Bank of Los Angeles, which was previously approved by the Federal Reserve. The Supreme Court upheld a lower court decision that the case should be tried on its merits, and not dismissed. Firstamerica, the nation's largest bank holding company, already controls the First Western Bank & Trust Co. and planned to merge it with its new acquisition.

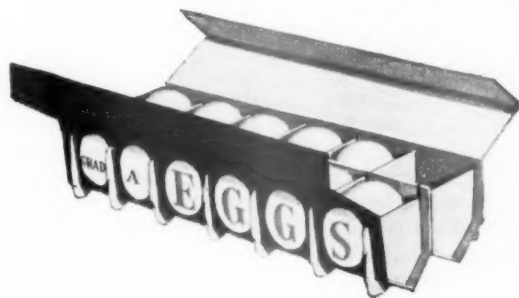
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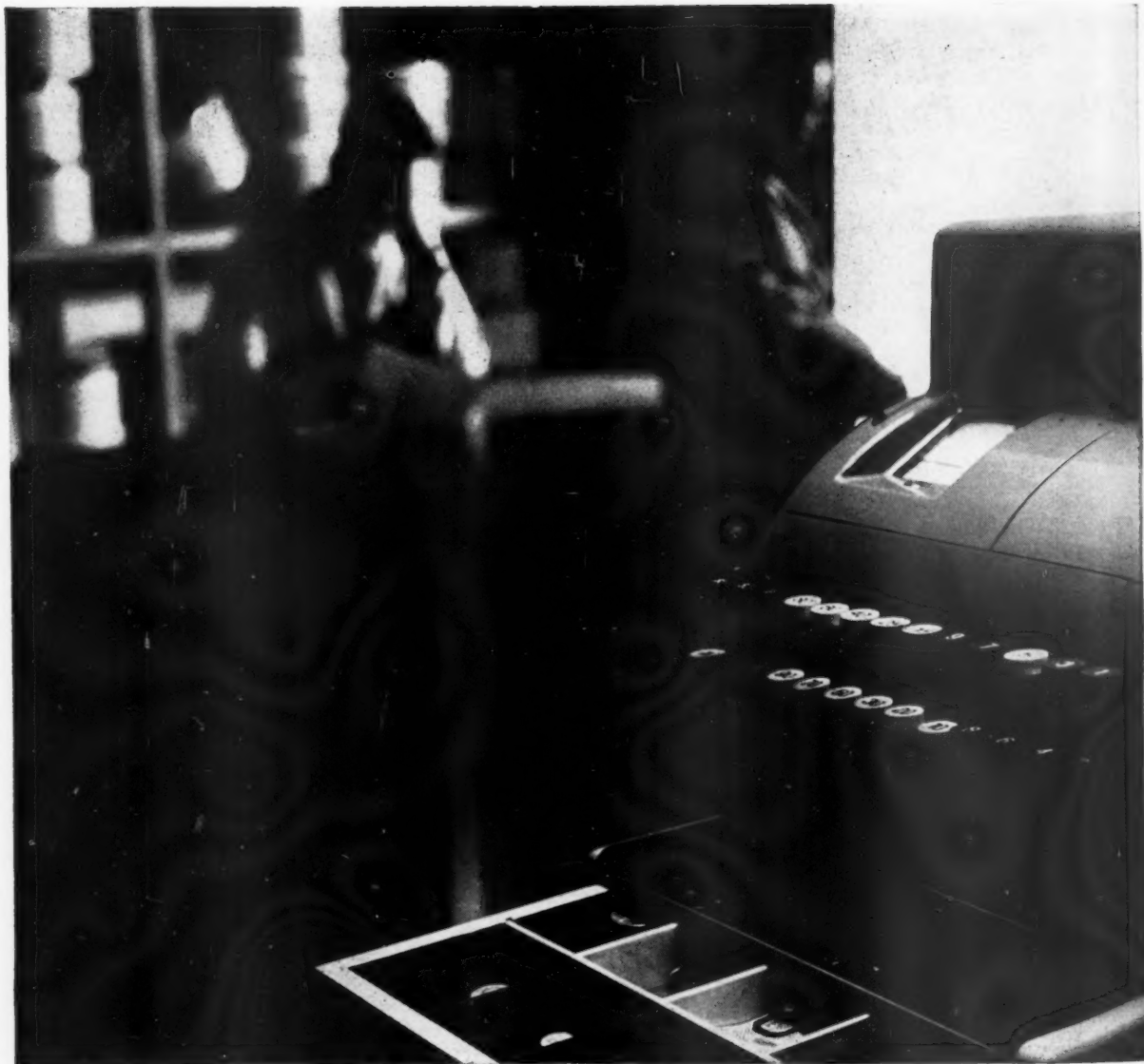
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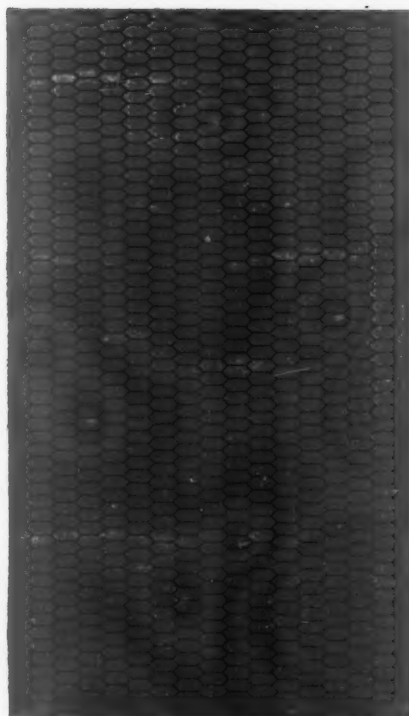
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RESEARCH



Take a metal with heterogeneous grain structure like this . . .



Use a NEW HEAT TREATMENT on it.

Its grain structure changes to this, and . . .

You Get More Working Strength

That's the principle behind William Bassett's new process of heat-treating metals for rough use.

Two 28-year-old Californians—an idea man and a businessman—are proving out a heat-treating process that may lick one of metallurgy's oldest bugaboos: the tendency of metals to become brittle when they are hardened by heat treatment.

William I. Bassett, III, a former medical student, had the idea. His Bassett Process of Thermomagnadynamics heat-treats metals in a way that changes the normal grain structure (above, left) to a finer and more regular formation (above, right). This allows the hardness to be increased without loss of ductility, the desired toughness and pliability.

Bassett and Jack R. Taub, a former stamp dealer, incorporated Research Development Corp. of America last April. Taub, who worked out financing to test Bassett's idea, is president; Bassett is research director. The pair date their first business year from last September—the first time a customer took them seriously enough to pay in advance for

research. Since then, many major companies have written or visited them to find out what the process is all about.

• **Every Day, Every Way**—According to Bassett, the longer the company works on the process, the better the results turn out. This week, RDCA announced its greatest achievement of all: On a variety of steel and titanium alloys, the yield strength (the measure of how much stretching force a metal can take before it is permanently deformed) was brought up to equal the tensile strength (a measure of how much stretching force actually breaks the metal), with no loss of ductility.

The company says it has also obtained good results in preliminary work on tungsten, copper, and aluminum alloys. Bassett thinks the process can be applied to more exotic alloys, too, such as compounds that contain beryllium, boron, and nitrogen.

• **Opening Doors**—To some metallurgists, the Bassett process sounds too good to be true. However, others who are familiar with it are enthusiastic.

If the process can be commercially applied on a large enough scale, it means a designer can take advantage of the highest known strength of an alloy

without fear that a part made of it will fail under stress. Missile makers will be able to rely on steel and titanium to withstand greater forces in space. They'll get greater strength from the same amount of metal or will be able to turn weight savings into greater payload or more range.

RDCA is aiming its first developments at the defense industries, but the steel and auto industries have also shown interest in the potential of saving weight without loss of strength.

1. Process at Work

The partners are braced for a fast expansion of their business. Taub admits the company is barely breaking even now, but he talks confidently of a \$1-million net by next September and of \$10-million in another year or two.

Bassett's work started, true to the American tradition, in a 400-sq.-ft. garage in Gardena, south of Los Angeles, then expanded last April to its present 1,400-sq.-ft. building in Gardena, employing 30 workers. In May, the company will move again to a 140,000-sq.-ft. plant a few miles away in Torrance, where it plans to install 10 new fur-

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naces. The largest will accommodate pieces 10 ft. long by 4 ft. in cross-section, compared with present size limitations of 30 in. by 12 in.

- **Patents Pending**—Bassett has applied for two patents so far and thinks he has enough data to support five more patent applications. But with patent coverage still unsettled, he is cautious about revealing details of his process and equipment.

The key to the process, however, is the change in the grain structure that's shown in the drawings on page 45. Present heat-treating methods leave metal with a heterogeneous grain structure—grains of varied sizes in a random formation of crystals, including needle-like formations that are especially susceptible to fracture under heavy stresses. The Bassett process claims to produce grains of equal size, averaging only one-tenth as large as in the conventional process, and spaced at equal intervals from each other like bricks in a wall. In this homogeneous structure, all grains point along the same axis.

Bassett refers to his process as "refinement" rather than rearrangement of the molecular structure. He also prefers to say that he is not so much increasing the strength of a metal as simply taking advantage of more of the metal's inherent strength.

- **How It's Done**—Like conventional heat-treating methods, the Bassett process consists of three basic steps: heating, quenching, and the relieving of stresses.

Bassett's furnace is lined with a refractory purified alumina and heated by ceramic glow-bars. Its difference is in its atmosphere: ammonia whose molecules have been specially treated by passing them through a molecular sieve. This treatment raises the dew point of the ammonia, the temperature level at which vapor begins to condense. In turn, this prevents uncontrolled heat of condensation from upsetting the accuracy of the temperature in the furnace.

Bassett is keeping the secrecy lid on two phases of his process:

- The use of a magnetic field to line up the metal grain structure. Bassett says this part of the process is based on the domain theory of magnetism, a "domain" being a group of highly active particles that respond as a group to magnetism. But he won't say at what point the magnetism is used.

- The solution used to quench the treated metal. Bassett says the process permits the quenching of several parts at once, or continuously, and does not require all of a part to be quenched simultaneously or each part to be quenched individually.

Bassett says also that time and temperature conditions differ from those of conventional methods. Good equipment and close control are essential, the

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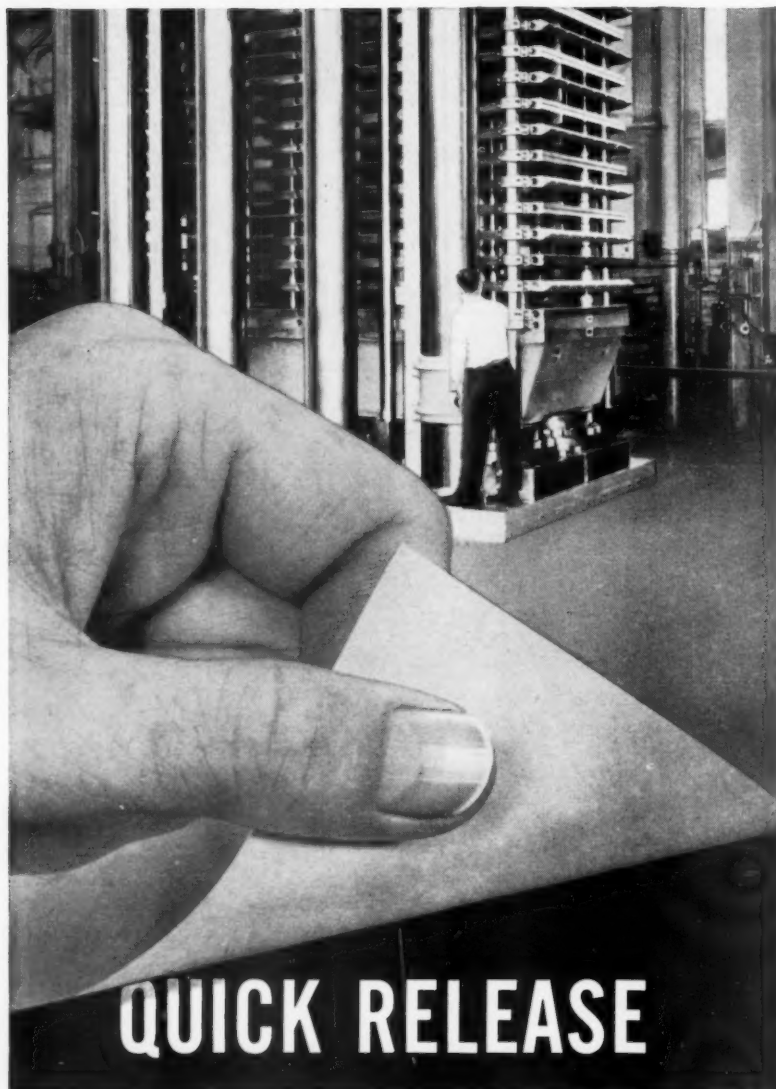
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company says, but it claims that the process takes less time, costs less, and is easier to carry out than other methods. It also claims greater uniformity of results, which happen to have been actually better with titanium, one of the more difficult wonder metals, than with steel.

II. Interest Grows

RDCA expects to be able this year to deliver alloys that are still ductile when hardened to resist 500,000 lb. per square inch, and perhaps up to 1-million psi. next year.

This prospect has attracted the attention of several aircraft companies. RDCA is already working with Aerojet-General Corp. of Azusa, Calif., in an R&D project that may lead to a licensing arrangement. Another current research program centers around an experimental drive shaft for General Motors Corp. Jones & Laughlin Steel Corp. has discussed both R&D programs and licensing arrangements with RDCA.

In its brief business life, the company seems to have made a good start at arousing interest. This has been done chiefly through word of mouth, since little promotion effort has been made. The Battelle Memorial Institute in Columbus, Ohio, and several Army Ordnance arsenals have been among other inquiries about the Bassett process, as well as General Electric, Western Electric, and Westinghouse.

• **Three Profit Sources**—Taub and Bassett see three ways for their company to earn a profit:

• By expanding R&D work, which they see as having a high potential.

• By doing production work in its own plant for other companies, such as the Hufford Corp. division of Siegler Corp. is doing in the machine tool and metalworking industry (BW—Jan. 2'60, p92).

• By licensing the Bassett process, all or in part. Bassett says he can adapt a company's present heat-treating facilities, or instruct the company in such an adaptation, for about 20% of the cost of new equipment. RDCA would then draw a royalty based on the volume of work done with the process. Licensing may prove to be the most profitable of all the company's activities, says Taub and Bassett.

So far, the company has been following a policy of a flat-fee contract for R&D work, in contrast to a "best effort" type of contract. This has had problems for a small, new company hampered by lack of capital. Sometimes its cost estimates have been faulty—once a 30-day research project ran out to an expensive nine months—but the experience taught RDCA to work even harder on its estimating. **END**

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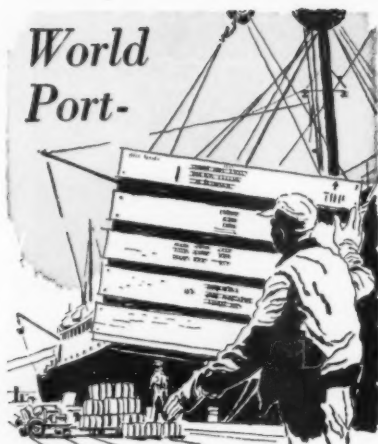


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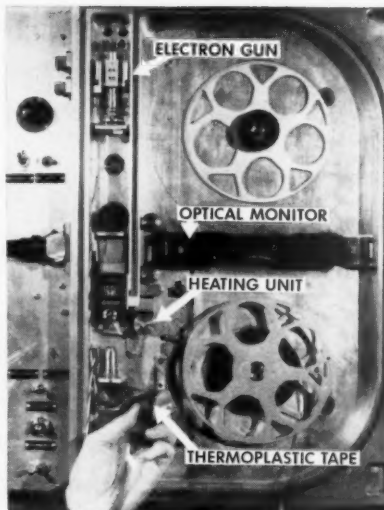
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IN OPERATION, a vacuum chamber would enclose this working area.



AS PROJECTED, each frame of the visual image will fit inside a paper clip.

How GE Records on Film

It's not a photographic process but more like a magnetic tape recorder, with some advantages of each, a few of its own.

General Electric Co. this week gave its first public demonstration of a thermoplastic recording system (BW-Jan. 2'60,p74). The audience of science writers in New York City came away confused but impressed with the possibilities of this new method of recording and storing information.

Thermoplastic recording is still under development, but already it shows advantages over both photography and magnetic recording, as well as some of their virtues. It can store the wide range of information that photography can store, but it can do it with almost instantaneous processing and with much of the versatility of magnetic recording.

• **Packing It In**—Already, TPR has been used to concentrate 100 times as much information in a given space as magnetic recording can do. According to Dr. William E. Glenn, its inventor, it has the potential for still greater concentration.

As an example of TPR's storage capacity and speed, it would take the new machine only five minutes to record all the editorial pages for a year of BUSINESS WEEK, and it would all fit on a half-inch reel.

Like photography, TPR's recording is virtually instantaneous, and it can reproduce either black-and-white or color; unlike photographic film, it requires no chemical processing. Like magnetic tape, it can be erased and used over and over again.

TPR can record anything that comes in the form of an electronic signal: from a TV camera, from a computer, from a radar set, from a telephone or microphone. It has a high degree of resolution—creates a sharp image. It can record electrical signals in a band ten times broader than presently used television tape—as if a television set could receive all 13 bands at once. Yet the stored information can be read out with only a simple modification of a standard film projector.

According to early estimates, the cost of a TPR system should be relatively low, but GE is unwilling to make any precise guesses yet.

• **Not Quite Ready**—Dr. Guy Suits, vice-president and research director of GE, says technical development remains to be perfected before GE comes out with a commercial product. This is to be expected with a system that uses basically new recording and playback techniques.

GE is not alone in working on a recording system of this type. Last September, Ampex Corp. announced that it had been working on a number of new recording systems, including this one, and Bell Laboratories, among other companies, has been pushing research.

• **In Principle**—A thermoplastic recording is made by an electronic scanning beam in the form of charges on the surface of a three-ply plastic film. Thus, it has an electrical input like a magnetic tape recorder, yet stores data both as an image similar to that on a photographic film and as a permanent electrostatic charge. This image can be read either optically, through a projec-

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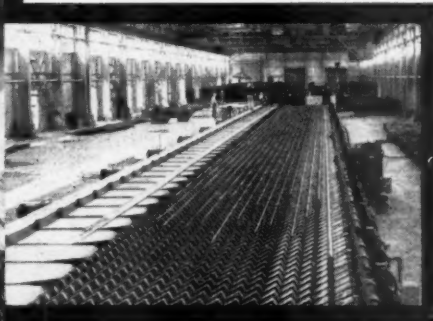
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TOTAL MANUFACTURING FOR THE BUILDING INDUSTRY FROM RAW TO FINISHED PRODUCTS

... TPR uses lamps specially made to produce lines of light instead of a mass of light ...

(STORY on page 50)

tor, or electrically by means of any of several standard devices.

The film used in General Electric's TPR has a base similar to motion picture film; it is coated first by a transparent material that conducts electricity, and then by a thin, transparent layer of a thermoplastic material—a material that softens under heat and then retains its new form.

The exposure of the tape to the electronic scanning beam takes place in a vacuum chamber. The beam deposits a charge on the thermoplastic layer of the tape in a latent image made up of a series of ripples like the scanning lines on a TV screen. As the film moves on past a heating element, a current is induced in the middle layer—the conductive coating. This current attracts the electrical charges on the thermoplastic top layer, pulling that surface down in the pattern of the visible image. As the film cools, this pattern is fixed.

The pattern can be erased at any time, for re-use of the tape, by heating the tape higher than before, so that the electrical charges leak away and surface tension can pull the thermoplastic layer back to its original smoothness.

• **Optical Pickup**—In any conventional projection system, a broad source of light (the glowing filament of a lamp) shines through a lens (the condensing lens) onto the film and, through another lens (the projection lens) to the screen. Optical pickup of the image on the TPR film is based on this system.

However, TPR uses lamps specially made to produce lines of light instead of a mass of light, and a set of bars is placed in front of the projection lens. With an unused film in the projector, the slits of light and the bars are so arranged that no light reaches the screen. With an exposed film in the projector, each ripple on the thermoplastic coating diffracts, or bends, the light so it misses the bars and strikes the screen. The white spots of light that pass through the bars make up the visual image.

The optical system developed by GE to produce images in color is similar, though more complicated. It also depends on diffraction and on sets of bars or grids (as in color television) that filter out unwanted color.

• **Military Values**—While many industrial uses are sure to be found if TPR can compete in cost with recording systems already on the market, the military services are the most enthusias-



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To check your identification of these famous hands see page 126.

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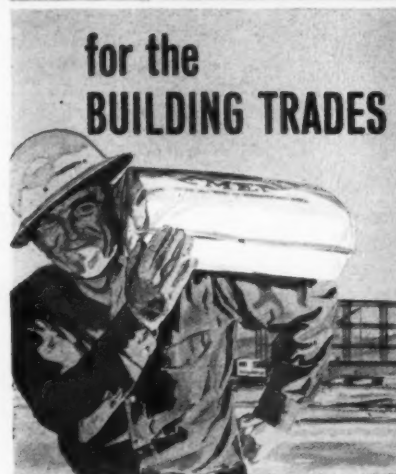
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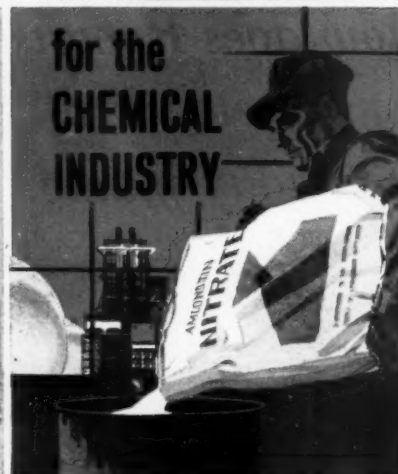
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... with TPR, it should be possible to record and report weather information all around the globe ...

(STORY on page 50)

tic prospective customers at the moment.

One of the great military advantages is the ability of TPR to bring out any portion of the projected image for easier study, fading out the rest of the pattern that shows on the screen. Along with the almost instantaneous readback of TPR, this means a great gain in the immediate interpretation of radar signals, to take one example.

If you couple TPR to a radar set, you can thus make positive identification of any object from which a signal can be picked up at all; on the standard radar screen, a weak signal produces a weak image. TPR is expected greatly to extend the range and reliability of radar.

Moreover, with its wide waveband, TPR can record all electromagnetic radiation in a given area, then use its ability to highlight given signals to study all of them in turn. Because of the band width limitations of other recording devices, it has been impossible to record such signals on anything like a continuous basis.

The large-screen projection of TPR also is helpful in radar, sonar, and infrared work. Data would not have to be plotted manually or copied photographically; the big screen could show everything with a time lag of only a fraction of a second and with no loss of detail.

• **Beyond the Blue Sky**—Further in the future, TPR offers aid in long-range missile guidance and work with satellites.

For example, the ultimate military missile is deemed to be a nuclear-powered low-level monster that would automatically navigate by reading a picture of the land over which it passes and then comparing this with a prescribed route on a map. It should fly at a low altitude to escape distant radar detection, yet it should fly fast enough through the earth's denser atmosphere to avoid countermeasures. Only nuclear fuel could provide that kind of thrust; TPR might provide the guidance.

The great capacity of TPR per unit of space or weight should be helpful in satellites in the nearer future. Right now, satellites can do only the simplest recording chores; with TPR, it should be possible to record and report weather information all around the globe, as well as to monitor the full spectrum of manmade electro-magnetic emissions—radio, radar, and the like. **END**

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**Is
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AROUND THE COUNTRY OR AROUND THE WORLD, FIRST NATIONAL CITY KNOWS

In Research

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Grumman to Report on Feasibility Of Nuclear Propelled Missiles

A study of the feasibility of nuclear-powered rockets will be completed by late March by Grumman Aircraft Engineering Co. It's aimed at finding whether heat transfer problems can be handled, how to shield reactors, and whether necessary materials are yet available.

A nuclear-propelled missile would have much greater range than one chemically fueled, and would need much less fuel storage space. Defense against it would be more difficult, since its great range would mean that it would not have to follow a ballistic course to travel 5,000-10,000 miles, but could fly very low to avoid detection.

. . .

Tube of Powdered Bone Removes Radioactivity From Milk

A simple, inexpensive method of getting radioactive strontium out of milk has been developed by Dr. W. D. Armstrong and Dr. Leon Singer at the University of Minnesota. The system was devised as a standby in case nuclear bomb fallout should raise the strontium 90 content in milk to dangerous levels.

The trick is to fill a long glass tube with bone which has been powdered after removal of the bone fat. Radioactive milk passing through the tube undergoes a cation exchange—that is, the strontium 90 ions pull out of the liquid, because of their similarity to the calcium ions in the bone.

The treatment removes virtually all of the radioactivity from the milk, without changing the flavor perceptibly. The tube full of bone can be used over and over again, after being flushed out with calcium.

Armstrong and Singer are now seeking ways to permit the treatment of milk in large quantities; they point out that the bone can be bought cheaply from stockyards. They have applied for patents on the technique.

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Skyhook 60 to Seek Data in Space On Particles at High Energy Levels

A government-sponsored hunt for the most powerful cosmic rays in the universe will start late this month, guided by University of Chicago scientists. The project, called Skyhook 60, is backed by the National Science Foundation and the Office of Naval Research.

The idea is to record cosmic rays of the highest energies by dangling specially prepared film on the edge of space for as long as possible. Balloons, each higher than a 40-story building, will be sent up from the carrier Valley Forge, somewhere off the West Indies. They

are expected to rise to 18-22 miles, and to stay there for at least 48 hours.

These results are hoped for:

- More concrete knowledge of cosmic radiation. Rockets and satellites move too fast for this type of work.

- Greater understanding of the behavior of some of the smallest elementary particles at energies up to 100 times greater than the 25 BEV energy produced in the world's largest accelerator.

A satisfactory relativistic theory of the behavior of ultrahigh energy particles could open a whole new field of experimental physics.

. . .

Antibodies Produced by Lymph Nodes Linked to Rheumatoid Arthritis

Medical researchers now have reasonable proof that arthritis is part of an over-all antibody reaction. Doctors at New York's Hospital for Special Surgery believe that the rheumatoid factor in the blood of arthritis patients results from a secretion from the lymph nodes to the various joints of the body in the form of large, pale cells. These cells, in turn, produce antibodies that cause the typical arthritic swelling.

The lymph nodes have long been known to produce large quantities of antibody materials. The discovery that they play a part in arthritic troubles gives researchers a new springboard from which to seek methods of cure. It also opens the way to a much more reliable detection of rheumatoid arthritis in the early stages.

. . .

Weather Researchers Told to Amplify Their Work Beyond Cloud Seeding

Science will have to switch its methods of experiment if it ever hopes to tame the weather. That's the substance of a report by the National Academy of Sciences—National Research Council stressing the immediate need for more basic understanding of atmospheric processes.

Cloud seedings in the past 10 years have added to knowledge of weather phenomena, the report says, but they have also led to many false starts and to a general dilution of other experiments in the modification of weather.

Still, leading meteorologists contributing to the NSF report say cloud-seeding experiments might just possibly lead researchers to grasp the whole mystery of energy balances in weather, thus giving man the ability to control not only rain and snow but also hail, lightning, and violent storms.

Before there is any real chance of this, great improvements are needed in measurement techniques, instruments, and standardization of terminology. Expanded basic research is needed in atmosphere physics, chemistry, electricity, solid-state physics, crystallography, surface chemistry, and electron microscopy. And programs should be started to study specific weather systems, such as shower clouds, orographic clouds—those influenced by mountains—hail-storms, lightning storms, and full-scale cyclonic systems.

HIGH DENSITY
POLYETHYLENE
PROFIT PARADE

Plastics Development Pays Off for Hollow Products

If hollow products, parts or containers are important in your business you should know what blow molding and high density polyethylene from Grace have to offer. These dent-resistant, durable bottles by Owens-Illinois show a few of the benefits never before realized with other plastics and fabricating techniques.

High density polyethylene can be used to produce hollow objects such as these bottles that are featherweight yet remarkably rigid and strong, even in thin wall sections. Economies in production and raw materials naturally follow. In addition, these bottles are resistant to abrasion and virtually indestructible. They withstand refrigeration without cracking, autoclaving without distortion and exposure to most chemicals. Signifi-

cantly, the Owens-Illinois no-drip bottles are comparable in cost with many of today's packages.

Blow molding also permits the use of Grex resins that result in superior strain-free characteristics, often difficult to achieve by other techniques.

Sound interesting in terms of the products you make? Then you'll also be pleased with the surprisingly low mold costs, too. For the full story on this versatile plastics development call in the high density polyethylene experts. Grace has the production facilities, technical service and experience to help put your product in the Grex profit parade. Everyone says we're easy to do business with.

Grex is the trademark for W. R. Grace & Co.'s Polyolefins.

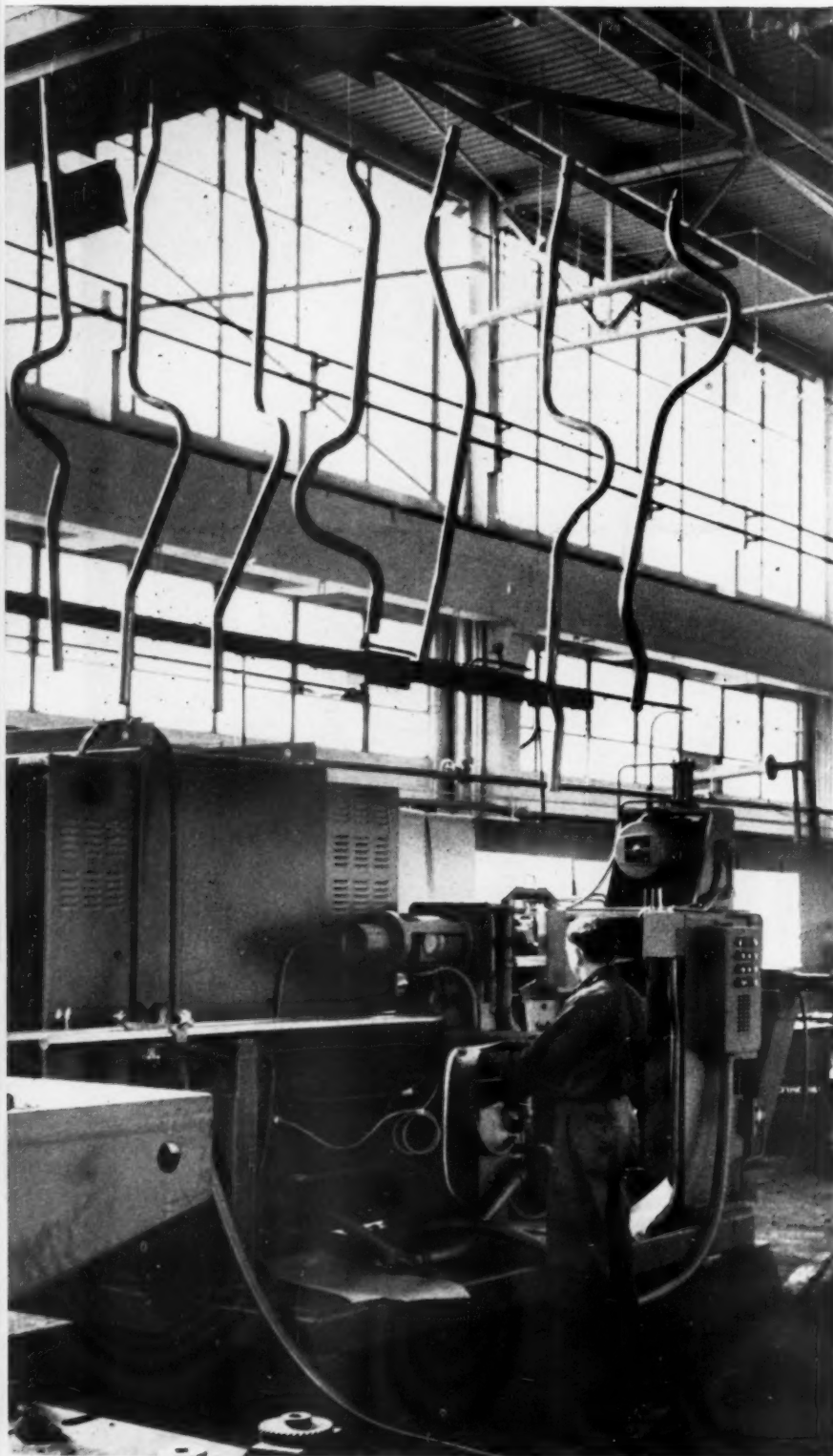
W.R. GRACE & CO.
POLYMER CHEMICALS DIVISION



CLIFTON, NEW JERSEY

NEW PRODUCTS

New Twist in Pipe Twisting



ANY SHAPE of tailpipe can be made automatically by the Bend-O-Matic, developed by Baldwin-Lima-Hamilton. Samples hang above the machine.

Tape controls speed the shaping of auto tailpipes in a new machine for regional distributors of replacement parts.

In an age of assembly-line production and standardized parts, the automobile tailpipe is something of a freak. It comes in a different convolution for practically every make and model of car since the flivver. There are 700 to 800 variations on the exhaust pipe in use in autos and trucks now on the road, and more new versions are coming every year. During 1959, for example, Ford added 22 new tailpipes to the confusion and Chevrolet 21.

When a tailpipe wears out, an auto parts supplier may be called on for any one of these hundreds and hundreds of different types. With the replacement market for mufflers and exhaust pipes expanding mightily (BW-Apr. 18 '59, p132), this means a distributor of replacement parts must keep most of them in stock. Ordinarily, the manufacturer does the bending and ships the tailpipes out already shaped.

• **Enter Automation**—A small but growing company in the replacement parts business, Nu-Era Corp. of Rochester, Mich., is about to introduce a way for the distributor to avoid maintaining this expensive and complicated inventory. Nu-Era's solution to the problem is the highly automatic, tape-controlled machine in the pictures, which in two minutes flat can turn a piece of straight pipe into a tailpipe answering any specification.

The machine, called the Bend-O-Matic, was developed by Nu-Era and built by Baldwin-Lima-Hamilton Corp. With the Bend-O-Matic, a distributor won't need an inventory of hundreds of pre-bent pipes in odd sizes. He will have one of the new machines on his own premises, and with a supply of stock tubing in four basic diameters and a library of tape, one for each pipe configuration, he can shape tailpipes automatically and to order. In effect, the manufacturing process will be decentralized and put on an as-needed basis by giving part of the job to the distributor—and, at the same time, tape-controlled machinery will be moved out of the factory and brought one step closer to the ultimate consumer. The development may be in the vanguard of a new trend in U.S. industry, in which manufacturers ship information on tape instead of bulky goods to distant points.

At least, such is the goal of Nu-Era,

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PROGRAMING is done on Flexowriter to put vital statistics about each tailpipe on tape.



FEEDING TAPE into reader on machine is last manual operation in the pipebending process.

TWO MINUTES LATER a new tailpipe, this one for 1956 Ford, squirts out business end of Bend-O-Matic.





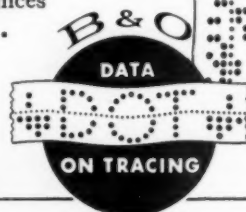
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It's a new performance measure of electronic railroading! ... DOT ... picks up car movement information *progressively* from 29 key B&O yards ... sorts and transmits it to B&O System headquarters 24 hours a day. ... DOT's ... continuous, speedy flow of car information lets 58 B&O traffic offices know where carloads are at all times ... and it covers all commodities. You'll get extra shipping satisfaction from ... DOT ... ! Ask our man!



BALTIMORE & OHIO RAILROAD

The Line of SENTINEL Service • TIME SAVER Service • TOFCEE Service



which last year sold an estimated \$5-million worth of replacement mufflers, tailpipes, and transmission gears. The company figures Bend-O-Matic has wide potential, since the market for replacement exhaust systems—the biggest sellers among replacement parts—is around \$350-million a year.

• **Strategy**—Nu-Era plans to buy the Bend-O-Matics from Baldwin-Lima-Hamilton and, in turn, lease them to distributors for about \$25,000 a year. The company's marketing people think there should be something like 100 customers to start—primarily auto parts warehouses that sell at least 50,000 tailpipes a year.

Baldwin-Lima has completed one prototype machine and expects to tool up this spring for production. The prototype itself will eventually be installed in the outside plant from which Nu-Era now purchases exhaust systems for sale under its label. There it will be used to manufacture pre-bent tailpipes for parts suppliers too small to lease a Bend-O-Matic of their own. In applications such as this, the machine has advantages besides its speed and automatic features. It eliminates the need for manufacturers to keep on hand the space-gobbling assortment of master gauges—wooden forms that are conventionally used as patterns to bend tailpipes.

• **Bend-O-Matic at Work**—For each configuration of pipe, only three factors have to be recorded on tape: the length of feed between bends, polar rotation, and angle of bend. After a tape has been inserted into the Bend-O-Matic, this information is absorbed by the machine's Friden tape reader, and its General Electric numerical controls go to work. A GE Thymotrol adjustable-speed drive controls length of feed and polar rotation; a rotary-drive hydraulic Rotac unit by Ex-Cell-O Corp. controls the bending.

Pipe can be bent as little as 0.36 degree and as much as 180 degrees. According to Edward Juerg, project engineer for B-L-H, the average tailpipe these days contains eight bends, though some have up to 13. When the proper length of pipe has twisted through the machine, a saw cuts it off.

In a conventional press, it's usually necessary to put sand or a mandrel in the pipe to keep it from collapsing at the joint when the bending exceeds the metal's elastic limits. With Bend-O-Matic's saw, however, it was impossible to use mandrels. So B-L-H engineers devised what they call "progressive bending": Instead of making one quick bend of, say, 90 degrees, the machine curves the pipe a gentle 30 degrees, goes back and gives it another 30-degree twist in the same place, and finishes the job in a third pass.

• **Tape Collection**—With each Bend-



Imagine the odds management is bucking!

No, you can't blame the men. They clocked in at eight this morning — but, as yet, the work hasn't reached their department. Pitching pennies at least passes the time. But you can bet that game of theirs will show up in the company's P and L!

Sometime soon, when work *does* come through, their department will need an extra shift to get it done. What with down-time one week and overtime the next, the game of chance management's playing is hardly penny-ante.

Too bad this company didn't know about Automatic Keysort Data Processing! With Automatic Keysort's weekly work-load summaries, management would have been aware of the exact situation in every department in the plant. Knowing *on time* which were due to be light, and which overloaded,

they could have acted *fast* to arrange schedules, transfers, extra shifts. Being informed of things almost as they happened, they could have kept production moving smoothly—and profitably.

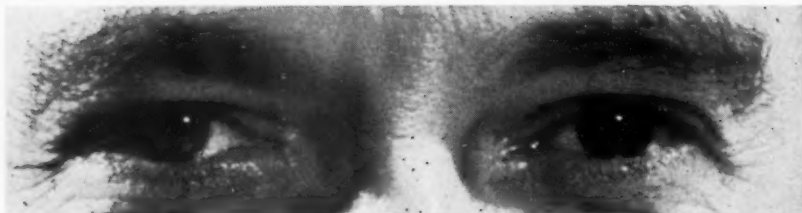
Automatic Keysort's easy-to-use machines and punched cards require no specialized personnel, no restrictive procedures. Designed to fit your business as it stands and as it grows, Keysort will give you all the fast, accurate information you need for modern management control of every operation. And at remarkably low cost.

To learn more about Automatic Keysort Data Processing, call your nearby Royal McBee Data Processing Representative, or write Royal McBee Corporation, Data Processing Division, Port Chester, New York for brochure S-500.

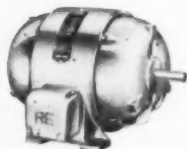
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EASTERN DIVISION: Howell, Mich.
Distributors in all Principal Cities

Refer to Sweets Product
Design File, Section 5a

O-Matic, the lessee would receive 700 to 800 tapes, one for each tailpipe he needs to keep in stock. Every time there's a model change, new tapes would be provided free. B-L-H plans to do the tape programming and store the master tapes in its Hamilton, Ohio, plant.

Thanks to tape controls and automation, the new machine can shape a pipe in half the time taken by present presses, the developers claim. Nu-Era estimates that it will more than halve the inventory space needed by warehousers and that it will bring big savings in material costs as well. Instead of paying \$2.10 for one pre-bent tailpipe, the distributor will pay about \$1.75 for a 16-ft. length of straight tubing from which two pipes usually can be made, the company says.

One competitor of Nu-Era admits that if the Bend-O-Matic proves successful, it will have to come up with something similar. Others in the muffler and tailpipe business are more cautious, if not downright skeptical, in their appraisal of the new device. But at Baldwin-Lima-Hamilton, Juerg sees a glittering future. Though the tape-controlled Bend-O-Matic is now designed only for auto and truck tailpipes, he says it would be relatively simple to adapt the dies of the machine to give a custom twisting to petroleum pipelines, electrical conduits, plumbing pipes, and a variety of other industrial tubing.



Coolers For Missile Parts

These are Westinghouse's new thermoelectric coolers for taking the heat off electronic components in industrial and missile applications. Inside each are junctions of special metals that dissipate heat if a direct current is passed through them. The units can cool areas, surfaces, or tiny parts such as transistors.



MAINTENANCE DEPARTMENT

Hats off to the profit makers!

Maintenance departments are major profit makers. Here's why:

A 10% reduction in maintenance costs can result in a 4% jump in profits in the average plant—according to latest Commerce Department figures.

Increasing numbers of cost-conscious maintenance men are adopting Organized Lubrication as one of the proven ways to reduce costs. As Texaco Lubrication Engineers have demonstrated time and again, an Organized Lubrication program can cut direct maintenance costs as much as 10%! (Other benefits: more dependable pro-

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Managers throughout the U.S. who have installed and evaluated Organized Lubrication programs can testify to the profit gained.

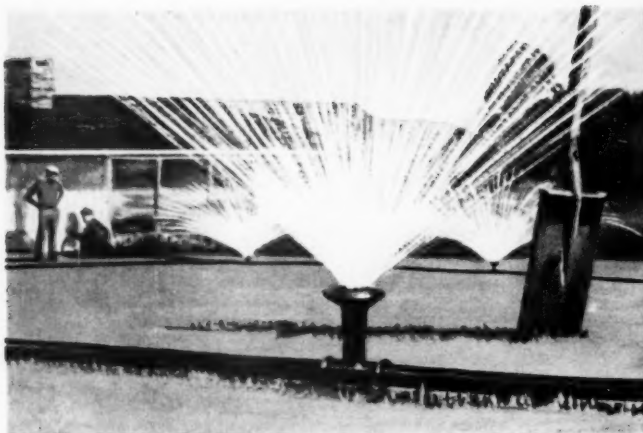
Texaco Lubrication Engineers can offer help and helpful material to start an Organized Lubrication program in your plant. Why don't you look into it? Call our expert—or write for a copy of our book: "Organized Lubrication . . . Major Cost Control Factor."

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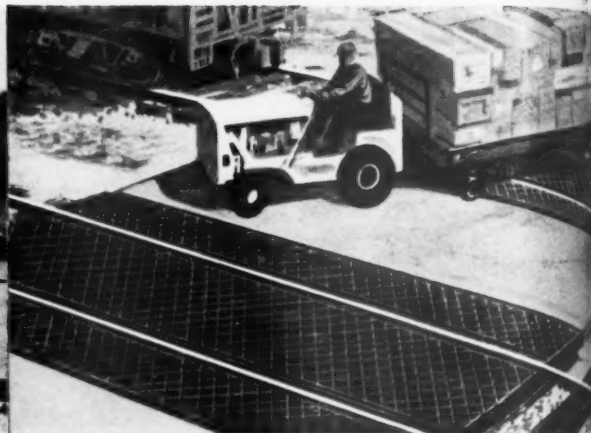
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ARMCHAIR LAWN-CARE FOR A LIFETIME is a dream-come-true for anyone installing an all-rubber underground sprinkling system. Its molded rubber spray heads never stub toes or mower blades—its all-rubber pipes won't rust, rot or clog.



RUBBER ERASES CROSSING COSTS when steel-reinforced rubber pads replace asphalt, concrete or wood for railroad crossings. These resilient crossings stay smooth and quiet-to-use for years without repairs—in the heaviest highway or interplant use.

What in the world of rubber wil

GOODYEAR INDUSTRIAL PRODUCTS

GIP-Specified

Molded Rubber Compression Ring for Clay Pipe Joints

A Spigot end of pipe has semirigid polyester joint with special locking channel to accommodate rubber ring

B Triangular section in rubber ring locks into pipe bell to form a constant but flexible compressive surface

C Molded rubber ring of specially compounded rubber to insure effective seal and long life under heavy shear loads

OFFICES ARE WIRED FOR SAFETY when over-the-floor telephone and electric machine wires are armored with extruded rubber channel. This "stumble-proof" covering is simple to install—easy to keep clean—lasts indefinitely—allows maximum flexibility in equipment placement.



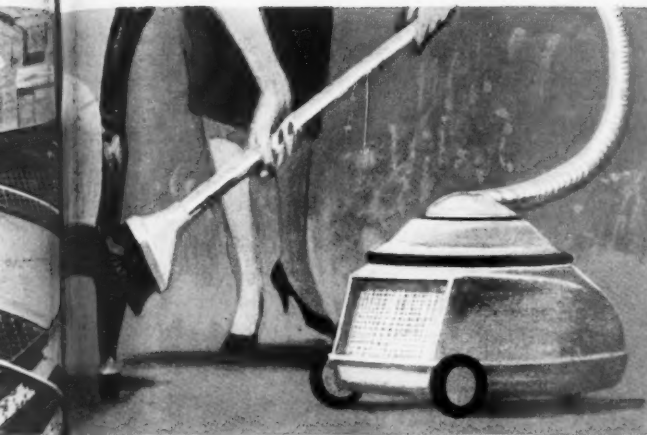
—and here you have only a sample of the many intricate problems tackled—and solved—by Goodyear experts in molded/extruded rubber and plastics

Product designers and engineers turn to Goodyear to take advantage of unmatched molded/extruded development facilities—top-notch engineering personnel—a wealth of production experience which only Goodyear offers. Result: they're discovering that rubber and plastics can be adapted to purposes never

MOLDED AND EXTRUDED RUBBER AND PLASTIC PRODUCTS by

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Nisothane—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio



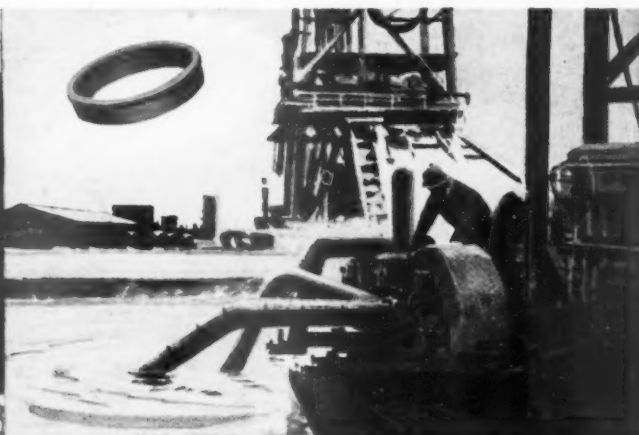
NEW VACUUM SWEEPERS CLEANING UP in today's market owe much of their appealing new styling to the extensive use of molded vinyl—from handles to wheels. The material's not only better looking but sturdier and longer-lasting than anything else yet used.

A VISIBLE MEANS OF SUPPORT for mine-shaft ceilings, molded rubber roof-bolt tension indicators bulge uniformly under pressure. That makes it easy to check for signs of dangerous shifts in overhead rock—insures safer working conditions for miners.

er will they think of next!

NEWEST WAY TO TOOL UP A LINESMAN calls for a tool pouch of molded vinyl instead of leather. The vinyl's more cut- and abrasion-resistant—more "oilproof." And although it's just as attractive as leather—this new pouch costs far less than real-leather pouches.

RUBBER HELPS BRING IN OIL WELLS in many different ways—particularly since the development of new, super-oil- and abrasion-resistant Neothane. Pump seals, gaskets, packing and valve seats are just some of the many molded rubber items helping to drill deeper wells in shorter time, at lower cost.



before thought possible—that these materials can handle many jobs better than leather or wood or metal or glass or what-have-you.

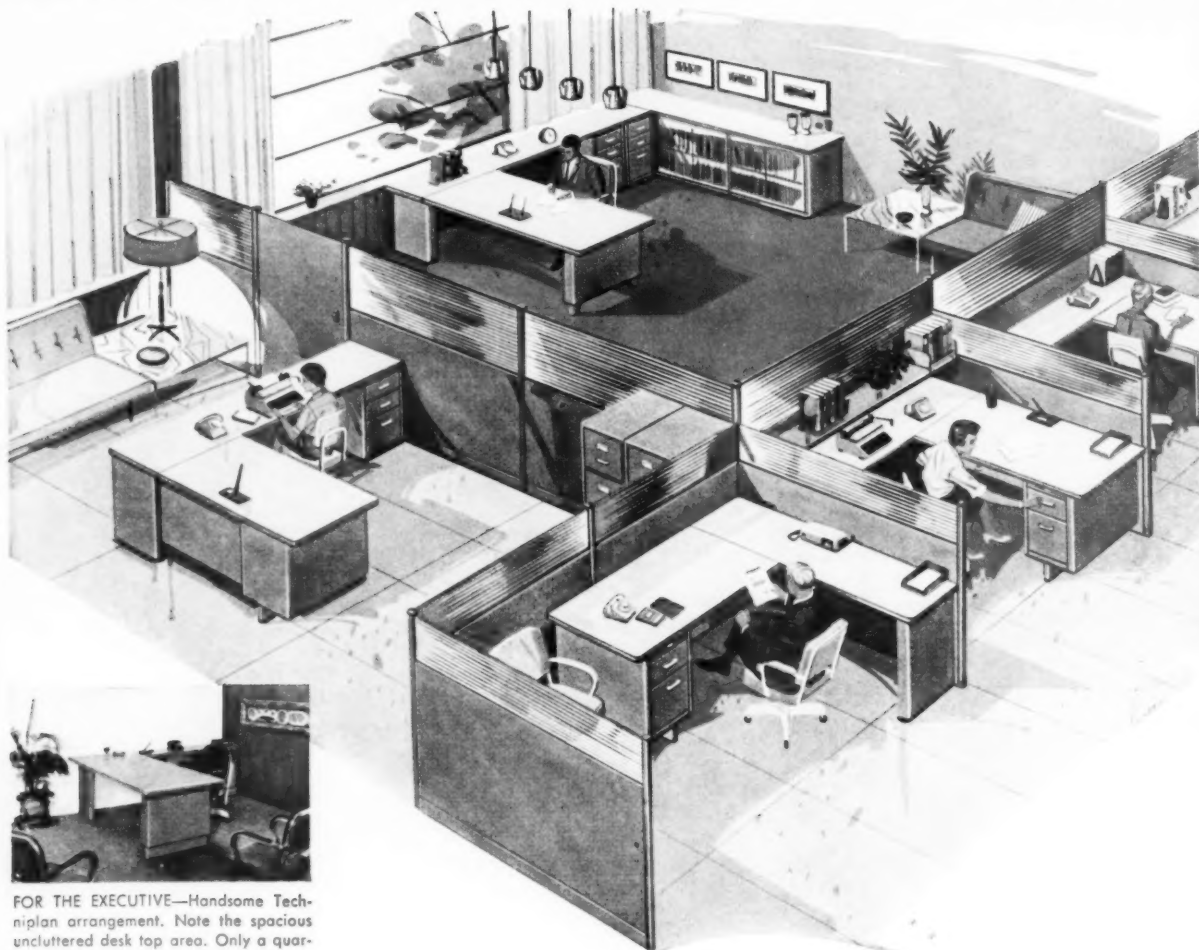
So it's easy to see why more and more firms give Goodyear first crack at any rubber-using project. To put your problem in the hands of *real* experts, contact the G.T.M.—Goodyear Technical Man. Write to Goodyear, Industrial Products Division, St. Marys, Ohio, Los Angeles 54, California, or Akron 16, Ohio.

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Globe-Wernicke Techniplan metal modular equipment will instantly transform your office into an integrated, completely functional, working environment. The universal components of Techniplan desks and credenzas can be assembled in an unlimited number of space-saving, custom arrangements to suit every person, every job. Sturdy free-standing Techniplan metal partitions provide the all important privacy conducive to high work out-put. They can be installed overnight with ordinary tools, without alteration of your present air conditioning, heating, lighting or other existing facilities. In addition, they can be easily moved to allow for expansion or re-arrangement.

Discover for yourself what the many exclusive features of Techniplan can do for you and your organization, in saving costly floor space, in creating greater employee comfort and morale, and in achieving substantial savings through increased efficiency and work out-put. New free Techniplan brochure in full color showing many arrangements, office lay-out ideas and color schemes is available now from your Globe-Wernicke dealer*, or write us direct, Dept. A-1.

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CINCINNATI 12, OHIO

In Management

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American Motors' Romney Asks Company To Cut His Salary-Plus-Bonus to \$225,350

American Motors Corp. Pres. George W. Romney has refused a bigger bite of the financial pie he baked while fattening up AMC. Under the corporation's executive bonus plan, Romney's total take for the fiscal year that ended Sept. 30 should have been \$325,000, including his salary of \$150,000. Instead, he asked the directors to limit his salary plus bonus to \$225,350.

Romney gave three reasons: Since he became president and started rebuilding AMC in the fall of 1954 he has tried to make it clear he was more interested in rewards for his employees and associates than for himself. He would rather have the directors think him underpaid than overpaid. "There are some things more important than money." Much the same reasoning was cited by John O. Ekblom, chairman of Hupp Corp., when he refused a \$110,000 bonus last summer and suggested the amount be used for incentive bonuses for Hupp's other managers (BW-Jul.4'59,p37).

Romney's action will give him a smaller bonus than those to be paid to Bernard A. Chapman and Roy D. Chapin, Jr., AMC executive vice-presidents, and Vice-Pres. Roy Abernethy.

• • •

Silence Is Golden in Some Offices; In Others, Music Hath Charms on Output

It pays to cut down on office noise, according to the National Office Management Assn. Three quarters of the 1,974 companies surveyed have some degree of sound conditioning in their offices. Among the blessings derived: 43% report improvement in morale; 29% in accuracy; 16% in quantity of work done; 4% in lost time; and 4% in turnover.

However, high-type noises have some supporters. The 18% that have music systems say that music on the job reduces fatigue and the monotony in some types of office work.

Fluorescent lighting has replaced incandescent lighting in 83% of the offices surveyed, and 72% have air conditioning.

• • •

New Top Jobs in Medium-Sized Companies Will Be Newly Created, Go to Outsiders

More than two-thirds of the management jobs to be filled in the next six months by a group of medium-sized companies will be newly created ones, according to a survey by Executive Manpower Corp., a New York recruiting firm.

Executive Manpower recently queried 157 companies with sales ranging from just under \$1-million to \$40-

million. Comparison of the results with those of a similar survey of larger companies by the same firm (BW-Aug.22'59,p61) points up some interesting contrasts.

The smaller companies don't expect to hire as many \$10,000-a-year-and-over men as the larger companies do. They will average more than one each, compared to more than three each for the larger companies. But more of these jobs will be brand new ones (69%, compared to 52.7% for the large companies).

And, if past experience is any guide, more of the smaller companies will have to go outside for executives. More than half the management jobs filled last year by the smaller companies went to outsiders, compared to 29.2% for the large companies. Said one \$6-million-a-year-company president, "A small firm is handicapped in being unable to select executive personnel from a large number of younger employees." Not surprisingly, less than half of the smaller companies have executive management development programs, while more than 60% of the larger ones do.

The smaller companies are looking chiefly for sales managers, while the larger ones want production managers. The smaller companies also expect sales executives to be hardest to find, while the larger companies are most worried about engineering executives.

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Management Briefs

Timken Roller Bearing Co. is giving partially paid leaves of absence to employees who hold public office. The new policy is somewhat similar to that which many companies follow for jury service. Timken grants "reasonable" time off for official duties—at full pay for local office, at the difference between the employee's regular pay and his salary from the state in the case of jobs like legislator. However, the employee first must try to change his work shift if that will cut down on his time away from the job.

More deferred profit-sharing plans than pension plans were added during the third quarter of 1959, according to the Council of Profit Sharing Industries. The net gain in deferred profit sharing plans during the period was 813, compared to 795 for pension plans. This is the first time, says the council, "that over-all gain in profit sharing has exceeded pensions in any quarter."

The Business School of Catholic University in Valparaiso, Chile, plans a course in American business administration and management methods, financed by a \$7,000 grant from the Foundation for International Progress in Management. The foundation is an affiliate of the Council for International Progress in Management, an American non-profit management organization.

Corporations gave almost the same amount to philanthropy in fiscal 1958 as in fiscal 1957, but it represented a higher percentage of net income, the American Assn. of Fund-Raising Counsel reports. Corporate income tax returns for the year ended June 30, 1958, show deductions of \$418,971,000 for gifts and contributions, compared to \$417,996,000 the previous year. Contributions in 1957-58 represented 0.91% of net income, compared to 0.87% in 1956-57.

BUSINESS ABROAD

Hong Kong Un

Two-year boom in sales of low-priced garments to U.S. is threatened by tariff action if local move fails.

Hong Kong, "Pearl of the Orient" in romantic novels for generations past, is taking on new stature as a place to visit, not just to read about. In the last two years, the British crown colony that clings to the southern coast of Communist China has had a stream of travelers from the U.S.

Some of these Americans are tourists. Every year more travelers succumb to the lure of the Far East, and Hong Kong is a regular stopover. Last year, 50,000 Americans stopped off in Hong Kong to see the bustling, cosmopolitan city—3-million people packed into a mountainous area the size of New York City—and to pick up bargains in clothing and jade.

Other U.S. visitors come on business, and they are even more important to the economy of Hong Kong. These are the U.S. buyers of textile goods. About 50 of them are full-time residents of the colony, but countless others come periodically to buy a wide range of cotton garments. They can get what



HONG KONG'S more modern buildings are terraced on the steep hills above the older, congested waterfront districts. Colony includes island and Kowloon peninsula.



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THIS CROWDED SHOP turns out men's shirts and pajamas for big U.S. companies.

KOWLOON SIDE of bay has ships and ferries lined up, with island in background.



BACK STREETS remain traditionally Chinese, with market stalls lining the littered pavement.

STANDARDIZED TENEMENTS are sign of massive job of resettling refugees since 1949.



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they want at prices far below those of U.S. makers because Hong Kong has an abundance of low-paid but skilled workers (BW—Sep.19'59,p109).

• **Overflow From Japan**—Hong Kong dates its textiles boom to two years ago when, under U.S. persuasion, Japanese textile producers adopted quotas on exports to the U.S. Twice in the past year, Henry Kearns, Assistant Secretary of Commerce for International Affairs, has gone to Hong Kong to urge local manufacturers, most of whom are Chinese, to do the same. If they didn't adopt a quota system, he warned, the American textile industry would cry for more protection from Washington.

Ironically, it was the 1957 Japanese cutback on exports to the U.S. that touched off Hong Kong's skyrocketing rise in textiles. Many Americans who had been buying in Japan, and some Japanese producers as well, shifted their operations to Hong Kong. As any housewife knows, there are a lot of garments on the U.S. market with "Made in Hong Kong" labels. But about 70% of them are made of cloth imported from Japan and from Taiwan, the Nationalist Chinese stronghold.

• **Resentment**—At first, Hong Kong operators bridled at Kearns' warning.

"We in Hong Kong don't get any American aid," said Elmer Tsu, a typical mill owner. "All we ask is to be let alone, to be allowed to trade. We accepted quotas on cloth for three years to the United Kingdom. In three years, Lancashire will have rebuilt their mills, and we will have a hard time competing. What will happen after that? Remember that we are marginal producers."

On second thought, however, Hong Kong operators decided they had better take the warning to heart. Despite considerable opposition from some mill owners, they formed the Hong Kong Garment Manufacturers (for the U.S.A.) Assn. This group proposed quotas on five key categories that would limit 1960 U.S. sales to 1959 levels.

The American Cotton Manufacturers Assn., which has been demanding a more solid kind of protection, decided this week to take a conciliatory attitude toward its Hong Kong competitors. It accepted the principle of voluntary quotas. But it is asking Hong Kong to cut the quotas, extend the list of restricted items, and begin as soon as possible instead of the July 1 effective date originally proposed.

• **Maybe Yes, Maybe No**—With its own internal conflicts to consider, the Hong Kong industry may or may not go along with this demand. Half of its market is now in the U.S., and the majority of manufacturers may prefer to take their chances with the U.S. Tariff Commission, which is scheduled to hold hearings in March, rather than be scared out of this bonanza.

Having lived under Communist guns for 10 years now, the Chinese view this as just one incident in the colony's shaky political and economic life.

I. Influx From China

Hong Kong was not always the teeming metropolis it is today. Prior to World War II, the half-million people there lived in a slow-moving provincial atmosphere.

Shanghai, at the mouth of the Yangtze River in central China, dominated China's business with the rest of the world. Hong Kong served only as a base of operations for trade with a part of South China. It was an "entrepot"—a classic example of a city living by selling its services for transshipment, stockpiling, insurance, banking, and distribution.

• **Imported Industries**—The fall of China to the Communists in 1949 changed all that. The Shanghai money and managers fleeing from the Reds went, in part, to Hong Kong, where they would have the protection of the British. There, businessmen started up again, many in trade but others in light manufacturing. Today, 70% or 80% of Hong Kong exports are Hong Kong manufactures—almost a direct reversal of the old economic pattern.

Hong Kong has managed to develop some economic diversity. It now sells about \$5-million worth of plastic flowers in the U.S., for example. Cheap labor and good dockward facilities have made the city a leading port for ship repair. One U.S. company is considering setting up a watch parts shop, and a Japanese company is working on a deal to assemble transistor radios there. Tourism is growing, and new hotels are going up in Kowloon, on the peninsula. A Chinese syndicate is building a super-luxury hotel to compete with the British-owned Peninsula Court.

II. Garment Foundation

But textiles and garments are the foundation for whatever prosperity Hong Kong can claim. In 1959, Hong Kong mills turned out 300-million sq. yd. of cloth, of which 120-million sq. yd. came to the U.S. Its 900 garment plants produced one-third of all local manufactures. They cut and sewed \$125-million worth of garments, half of which came to the U.S.

Almost all of the mills and garment factories are owned and run by Shanghai managers who hire Cantonese laborers who have fled from neighboring Kwantung province. The 15 largest garment shops turn out about 80% of the clothing made. The rest is made by literally hundreds of smaller operations.

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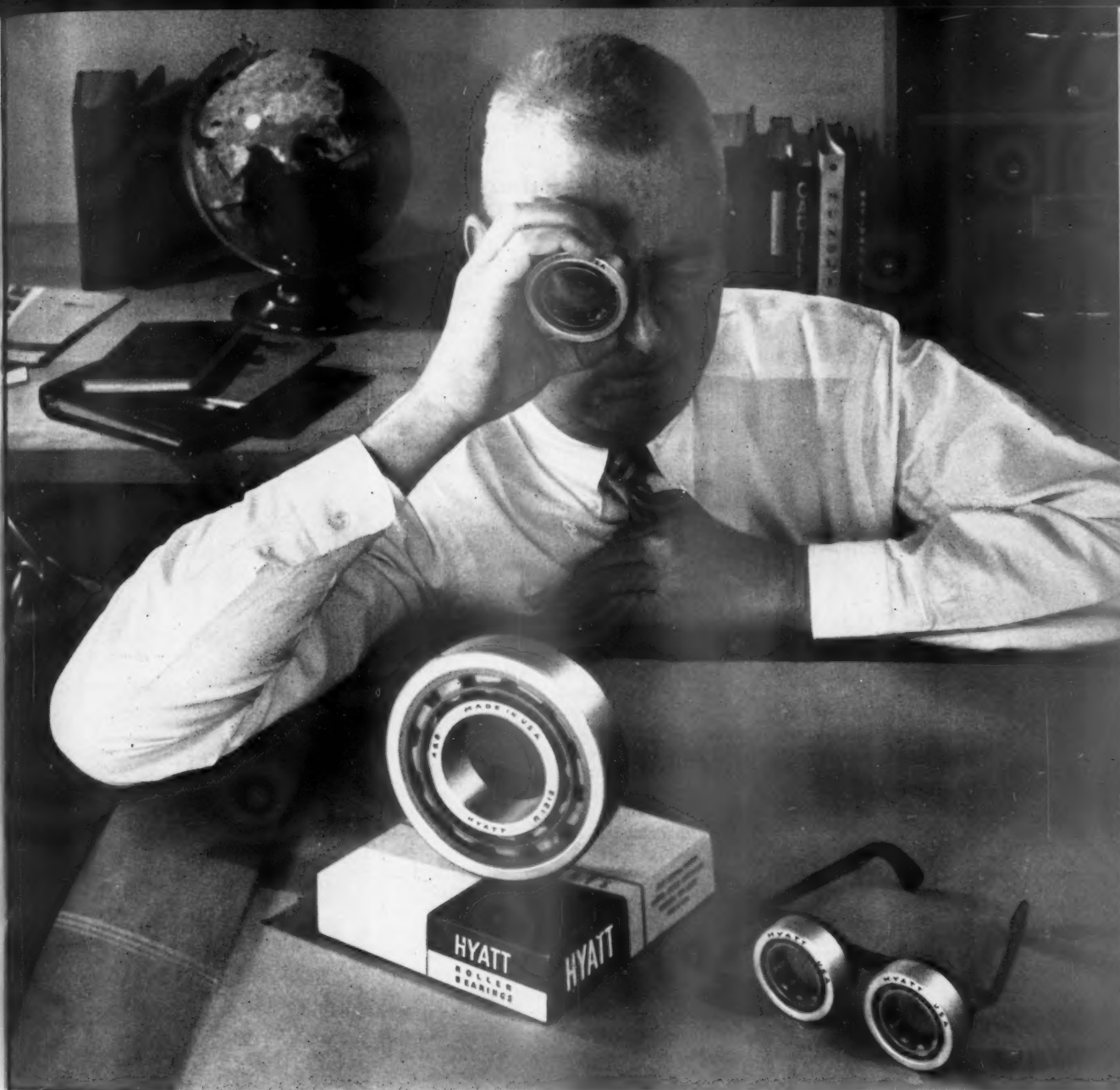
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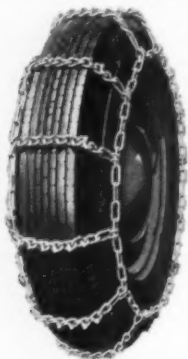
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Kong merchants sell 25% of the brasieres marketed in the U.S. while a Chinese boasts that Hong Kong is selling more shirts than the Japanese.

III. Under the Surface

On the surface, Hong Kong is indeed a many-splendored city. To the Western tourist, it is the "mysterious East" incarnate. The harbor is alive with sampans and junks. In the older Chinese section of Wan Chai, majong porcelains click at night, and the street vendor peddles Chinese soup from the yoke he carries on his back.

Up on the "Peak" that juts up on the island behind the tall buildings of the financial district live the "taipans"—the bosses of the big foreign (mostly British) trading firms, banks, and shipping companies. Their isolation is splendid in roomy, modern apartments run by a host of servants—even if there is a water shortage that makes taking a shower a timetable affair.

Across the bay are the giant relocation centers for refugees. The facilities are grim by Western standards, but far better than the improvised lean-tos that once dotted the hills and are still to be seen in some places.

- **Refugees**—Only occasionally does the visitor get wind of the misery just below the surface. The energetic, pragmatic, and fatalistic Chinese rarely complains. But once the surface is broken, even a whiff of the poverty is stifling. The refugees who cram into the colony at the rate of 100,000 a year are the main cause. Those who can find work do so at a pittance. Forty Hong Kong dollars a month—about \$7—often must feed a family, including an aged grandparent. Untold numbers are forced to sleep in doorways or back alleys.

Corruption is rife. One Hong Kong oldtimer, intimately connected with city affairs, says that almost every Chinese in Hong Kong is breaking some sort of law. He may be peddling illegally in the streets, spitting on the sidewalk, or trafficking in opium. Life is so hard that edging past the law is almost inevitable.

This makes the Chinese a ready victim of extortion or blackmail, whether by Hong Kong's poorly paid police or the infamous "triad societies," ancient Chinese secret clubs that have been taken over by hoodlums.

- **Assorted Wars**—Hong Kong has had to learn to live with wars—hot, cold, and trade. The Communist menace is ever present. It is fighting for survival in the turbulent economic currents of East Asia. Communist China has become a restricted market and a declining source of raw materials. Southeast Asia, which Hong Kong early in the postwar period saw as a growing market

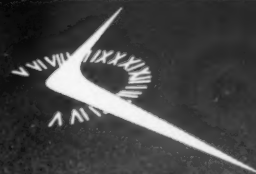
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for light manufactures, has sagged into self-pity and economic stagnation.

The cynical "old China hand" shrugs it off with the comment, "This is Asia." Asia has always starved; certainly the Chinese have known repeated catastrophe in their 3,500-year history. Life in Hong Kong, with all its injustices and hardships, is looked on realistically by the Chinese who have come there as far better than life in a Communist commune.

Credit for the order and discipline in the colony should go to the British colonial government. It runs a tidy house, especially in a day when colonialism has lost face in Asia. But the house is perhaps a bit too tidy, critics say. The colony last year had accumulated a surplus of more than \$85-million. Critics say that such a surplus, when Hong Kong desperately needs more schools, hospitals, refuge housing, waterworks, and other public works, is incomprehensible.

• **What's Being Done**—The government is undertaking some major projects. A \$35-million water reservoir is being built on a nearby island, and the water will be piped under the bay to Hong Kong. But it is only a temporary solution to a problem that not only discommodates residents but plagues industry. There are only four hours a day when public water supply is available.

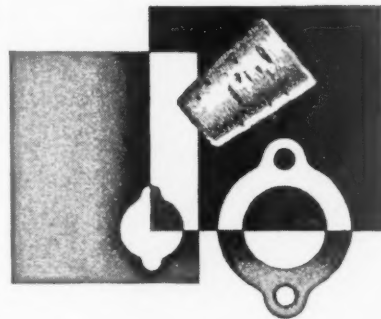
Other projects are behind the times. The Kai Tak airport was enlarged last year, but it is already too small to meet jet age requirements. Nor does the government bestir itself to go after new investment. New arrivals get information from the Dept. of Commerce & Industry. "But you won't get the kind of inducements you would get from one of our Southern states if you told it you were ready to set up a subsidiary," says one U.S. businessman.

British official policy is to keep hands-off wherever possible. It regretfully agreed to enforce the proposed textile quotas, and has helped enforce the Lancashire textile quotas since early last year. It cooperates in administering the U.S. blockade against Communist Chinese products entering the U.S.

• **Laissez Faire**—Otherwise, the British encourage a maximum of freedom. Hong Kong has the only free money market, except Kuwait, in the sterling zone. Taxes are a low 12½% of gross. The city is a free port for most articles.

Nor have British firms contributed much to the growth of manufacturing in Hong Kong in the past decade. Jardine Matheson, Butterfield & Swire, and the other old China hands prefer to stick to trading and transport. Indeed, a number of firms are believed to be liquidating their holdings quietly but steadily. They remember too vividly the fall of China when they had to ransom their staffs from Shanghai. **END**

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In Business Abroad

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Brazil Has Long Shopping List Ready For Discussion on Eisenhower Visit

Brazil is looking forward enthusiastically to Pres. Eisenhower's visit next month. Because Eisenhower is popular and comes fresh from a successful tour of Europe, the Middle East, and India, it's doubted that hostile demonstrations will be organized by Communists, ultra-nationalists, and other anti-American groups.

Much of the visit will be taken up with ceremonies, banquets, and the usual diplomatic hoopla. But the closed door conferences between Eisenhower and Brazilian Pres. Kubitschek will get down to specifics. The Brazilians want to discuss:

- Price stabilization for Latin American export commodities and raw materials.
- U. S. support of Latin American common market plans.
- Relaxation of U.S. income taxes on earnings of U.S. capital invested in Brazil.
- Re-equipment of armed forces and revitalization of hemisphere defense programs.
- Elimination of U.S. protective tariffs on commodities and raw materials that Brazil exports.

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Last Year's Tourists in Mexico Spent \$600-Million, With More to Come

More than 650,000 tourists, most of them from the U.S., dropped \$600-million into the Mexican till during 1959, making tourism a top dollar earner. These figures don't include money spent by "day visitors" in border towns such as Tijuana, Nogales, and Ciudad Juarez. It's predicted that Mexico's "industry without smokestacks" will hit the billion dollar mark in five years.

Mexico is enticing people from north of the Rio Grande with easily obtained tourist cards, more flights, paved roads, and more first-class hotels. Much of the push has come from the hotels and airlines, which advertise heavily in U. S. publications.

A selling point for Mexico is its absence from the "revolution news" that scares many Americans away from other Latin American spots, such as Cuba.

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India Soon to Get Idea of Help It Can Expect From West and Russia

India continues to be the main stop for visiting firemen from both the Western powers and Soviet Russia.

The World Bank mission of Hermann Abs (West Germany), Joseph M. Dodge (U.S.), and Sir Oliver Franks (United Kingdom) will arrive this spring to study India's Third Five Year Plan, scheduled to begin in 1961 (BW-Dec.19'59,p102).

The mission probably will not find out anything about Indian economic problems that's not already known in great detail. It will, however, focus the West's public attention on India's need for aid. Moreover, it will quietly give the Indians some idea of what they can and cannot expect to get from the West.

Observers doubt that India will get the \$1-billion a year that the draft of the Five Year Plan looks for. It's more likely to get around \$700-million in aid and loans, made up something like this: \$300-million from the U.S., \$100-million each from West Germany, the United Kingdom, Canada and other Commonwealth nations, and the World Bank.

India may be able to make up the difference with help from the Soviet Union. The Indian government has just accepted a Russian offer to build five drug plants in India. They will cost \$57.4-million, should be completed by 1964.

Within a few weeks, Soviet Premier Khrushchev will stop off in New Delhi on his way to Indonesia. He's disturbed by China's threatening moves on the Indian border, wants to affirm Russian neutrality in the dispute.

Also, a delegation headed by Russia's Pres. Voroshilov will make a state visit to India.

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Cambodia and Jordan Developing Their First Deep-Water Harbors

Two small nations, heretofore without deep-water sea-ports, are opening up their own harbors.

Cambodia's new deep-water port of Sihanoukville lies halfway between Saigon (Vietnam) and Bangkok (Thailand). It is named for the nation's leading figure, Norodom Sihanouk. The American President Lines' President Coolidge recently became the first large ship to call there.

The port is being developed in an area that was almost wilderness not long ago. A 224-mile highway built with U.S. financial and technical assistance will connect the port with Phnom-Penh, Cambodia's capital and most important city.

During the days of French colonial rule and then of early independence, Cambodia's trade came through Saigon or up the Mekong River to Phnom-Penh on river barges or small freighters.

In the Middle East, Jordan is developing the port of Aqaba, on the Gulf of Aqaba, an offshoot of the Red Sea. The former fishing hamlet is Jordan's only contact with the sea and is within shouting distance of the Israeli port of Elath, and the Saudi Arabian and Egyptian borders.

Until now, Jordan's traffic has reached the sea lanes by going across Syria to Beirut, in Lebanon. But the country has been practically isolated for at least two years—Syria has closed her borders and Israel's Mediterranean ports are unavailable so long as the armed truce between Jordan and Israel remains.

The new deep-water port was designed by the British engineering firm of Rendel, Palmer & Tritton and is being built by West Germany's Ed. Zublin & Co. It will accommodate ships of 20,000 tons. Jordan obtained an interest-free loan of \$7-million to help finance the project.



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MARKETING

New Spin for Seeburg Music Box

Company's goal is a line of vending machines that will dispense everything from music to food and merchandise.

It's the somewhat brash, though possibly accurate, opinion of Delbert W. Coleman (cover), 34-year-old president of Seeburg Corp., that up to now the automatic vending machine business has been run like a supermarket that just sells peas.

This week, Coleman announced several new moves in his two-year drive to transform Seeburg from a manufacturer solely of jukeboxes into a full-line manufacturer of everything in vending machines from music boxes to hotplate dinner dispensers. That's what he views as the inevitable future of coin-operated merchandising.

- Within the next few days, final papers will be signed for Seeburg's acquisition of Choice Vend Corp., a small manufacturer of bottle and can dispensers of soft drinks.

- Shortly after that, Seeburg expects to acquire a major export distributor to improve its overseas business.

- Before midyear, Seeburg will purchase or introduce its own pre-mix cold drink machine.

These additions, plus three others made since April, 1958, put Seeburg well on the way toward Coleman's goal—to be one of the three or four giants in a field noted for its helter-skelter of small single-line enterprises.

- **Leaders' Moves**—A newcomer to the industry, Coleman isn't alone in recognizing the need for this concentration of the vending business, though his ambitions perhaps outstrip the others.

Right now, vending is an industry in ferment. Acquisitions are the rule. Among the biggest vending companies, Vendo Co. last year took over Stoner Mfg. Corp., adding the candy, cigarette, and pastrv-dispensing business to its line of soft drink and milk machines.

Universal Match Corp. got into the business three years ago through purchase of National Vendors, Inc., and in 1959 bought the remaining 50% of the stock of National Rejectors, Inc., which has the lock on the important slug and change-making business—including a new device for changing paper currency. Universal plans a major move this year into the vending of merchandise costing up to \$9.

Another big company, Automatic Canteen Co. of America, formerly just a vending machine operator, became a manufacturer when it bought Rowe



PRESIDENT Delbert Coleman takes the acquisition road in his drive to transform his company from just a jukebox manufacturer into one of the industry's giants.

Mfg. Co.; and last year it acquired AMI, Inc., one of the few competitors Seeburg has in the music box business.

- **Fast Pace**—Other developments in the industry signal its rapid growth and reshaping. Technological advances, such as paper currency changers and the refinement of hot food devices, are examples. "Vending's importance as an outlet for merchandise was clearly recognized when General Foods Corp. last week announced it will finance the purchase by vending machine operators of new hot food machines using General Food products. Six equipment makers are participating in the program.

I. Growth

In fact, for anyone with Coleman's drive, vending is as good a business as any to carve out a career.

So far, none of the major competitors displays any concern that Seeburg will upset their own plans, though they don't underrate Coleman. R. W. Wagstaff, executive-president of Vendo, says: "We feel there is plenty of business for all of us."

- **Everyone Shares**—Since 1946, sales of all types of vended merchandise—not including music—rose from \$600-million to an estimated \$2.2-billion last year. Within another five years, total vending could easily hit \$3-billion, and if tech-

nology pays off, particularly for dispensing hot foods, the figure could be much larger.

Everybody in the business will share in that growth one way or another. That includes the thousands of small independent operators or vendors who buy or lease machines for installation in the thousands of available locations, service them, and share in the profits of the vended merchandise. It takes in, too, the big national operators such as ABC Vending Corp. and Automatic Canteen, whose executives think the biggest profits will come from vending merchandise, rather than from manufacturing equipment.

But equipment manufacturers, simply on a replacement basis, have a big market ahead. Further expansion into new merchandise areas and broadening the number of outlets will increase the size of their market. One estimate puts factory sales now at \$200-million.

Under Coleman, it is Seeburg's aim to take a commanding position in the manufacturing end of the business. His plans are made and, as his associates and backers attest, he moves fast.

II. Big Decision

It was the growth potential of the industry that led Coleman to make what may well turn out to be the biggest

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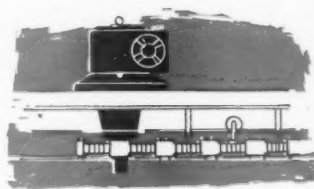


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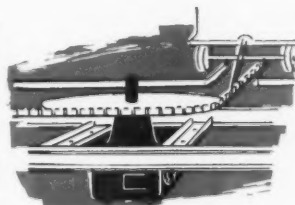
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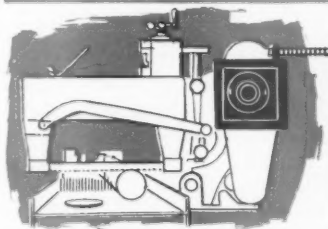
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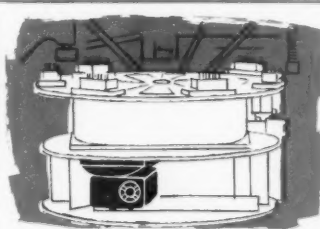
OVERHEAD . . . typical caterpillar or sprocket drives



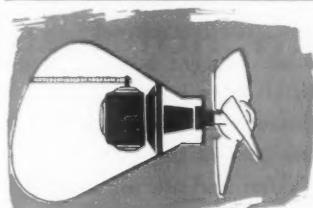
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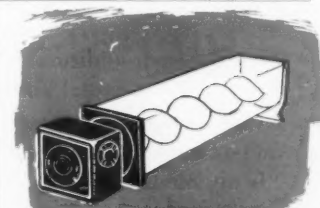
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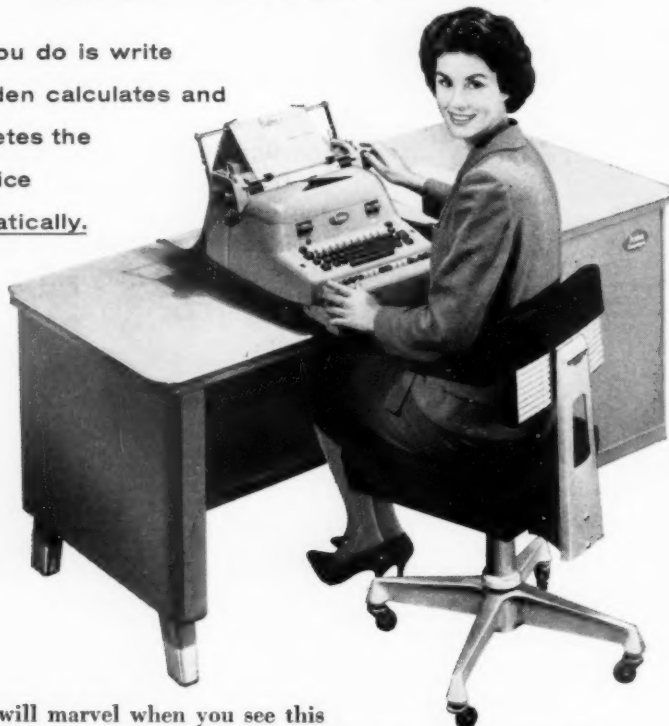
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decision of his life. That was to stay in the business once he had bought in. "I can't tell you I'm not interested in making money," he says. "I am. But I fell in love with the business. I'm in it to stay."

Had he wanted to, he could have pulled out with a several-million-dollar profit. Seeburg stock has climbed from about \$4 a share to around \$25. He owns over 150,000 shares with options (at \$4.50 a share) on 15,000 more.

- **Specialist**—Up to the time he entered the Seeburg picture, Coleman's chief occupation was making money by buying into special situations. The prospectus for a \$5-million Seeburg convertible debenture issue sets it forth thus: "The principal occupation of Messrs. Coleman and Herbert J. Siegel was the making and managing of personal investments." That is one way of saying Coleman and Siegel were young men in a hurry to make a fortune. Siegel still holds a large block of stock, but is no longer active even though still listed as chairman.

- **Early Career**—A graduate of Harvard, he got his law degree from the University of Pennsylvania, barely practiced in his hometown of Akron. He and Siegel had run some small ventures on the side in school—parking lots, selling Christmas trees, and the like. Out of school, he was involved with Siegel in a TV film company—liquidated for lack of an adequate future—and, in 1955, bought Westley Industries, Inc. (which he still owns), a Cleveland chemical firm.

- **Why Seeburg**—The big chance came when Coleman and Siegel took over Fort Pitt Brewing Co., a regional brewery in Pittsburgh. It was losing about \$1-million a year, Coleman says. By cutting fat, he was able to pare the losses. But the real problem was to find profitable companies to take advantage of a tax loss carryforward of close to \$2-million.

- **Option on Seeburg**—That's where Seeburg comes in—an old family company in Chicago that had always been a moneymaker but which the Seeburgs wanted to sell. The brokerage firm of Kidder, Peabody brought Seeburg and Coleman together. Coleman and Siegel had used Fort Pitt to buy the Siegel family's overcoat company, but that venture wasn't profitable enough.

Coleman, through Fort Pitt, took an option (for \$1) to buy Seeburg for \$10-million. "I had no idea where we could get that \$10-million," he says.

- **Financial Footwork**—But, after 18-months of fast financial maneuvering, he not only had the necessary money to complete the deal with Seeburg; he wound up with a company (Fort Pitt's name was changed to Seeburg Corp.), with assets worth \$11.5-million.

Coleman's plunge into Seeburg came



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just when money was becoming tight. Besides that, jukebox was a dirty word—and investors were skeptical about backing the business. One deal that Coleman had cooked up with Diversified Investors, Inc., fell through. At one point, Coleman had less than two weeks to raise the purchase price. "We were dead," he says. Akron-based General Tire & Rubber Co. gave him his break. It agreed to lend him \$1-million from its pension fund for a mortgage on real estate plus an option to buy 50,000 shares of what was then Fort Pitt stock at \$5 a share (it was selling for \$3).

Coleman was armed with an A. T. Kearney management engineering study giving Seeburg a remarkably clean bill of health in the racket-ridden jukebox business. He raised more money by getting the Seeburgs to take \$2-million of the price in debentures; selling to a small group another \$1-million in debentures; arranging with the First National Bank of Chicago to finance his receivables (at 80% of their face value); borrowing \$800,000 on insurance and another \$800,000 (at 13% interest) from Walter E. Heller & Co.

Coleman cleared up most of his hodgepodge of expensive debt with a term loan of \$3.2-million from the First National of Chicago—to whom, he says, he is awarding a "certificate of creative banking"—and, finally, by inducing White, Weld & Co. in July, 1959, to underwrite a public offering of 54% convertible debentures. Last July, proceeds gave Seeburg \$5-million in cash, which was used to wipe out all other debt and left the company with \$1.6-million for working capital and funds for further acquisitions.

Meantime, Coleman was in the process of clearing Seeburg's decks for the business he wanted in—vending. He dumped Fort Pitt by closing its plants and selling them off. (A Pennsylvania law prevents non-resident control of a brewery in that state.) He kept the Fort Pitt label alive by licensing Gunther Brewery of Baltimore (now owned by Theo. Hamm Brewing Co.) to use it.

Coleman raised more cash by selling the inventory of the cashmere coat business. By January, 1958, Seeburg was out of the overcoat and beer business.

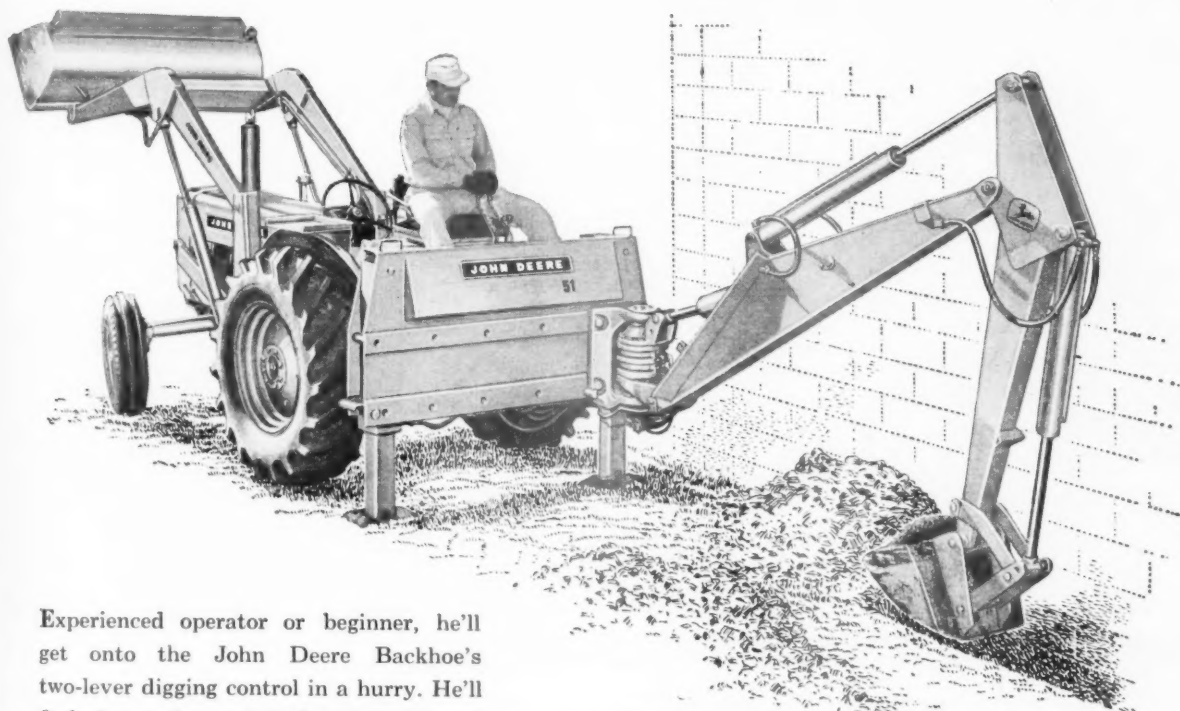
What was left? "A business," says Coleman, "that needed new thinking and new products."

III. What \$10-Million Bought

For his money, Coleman got the leading company in the coin-operated music box industry with sales of about \$25-million a year. Its reputation for top-quality machines, manufactured in its Chicago plant, was one inducement for Coleman's venture.

"Vending," he says, "depends on quality. If the machine doesn't work,

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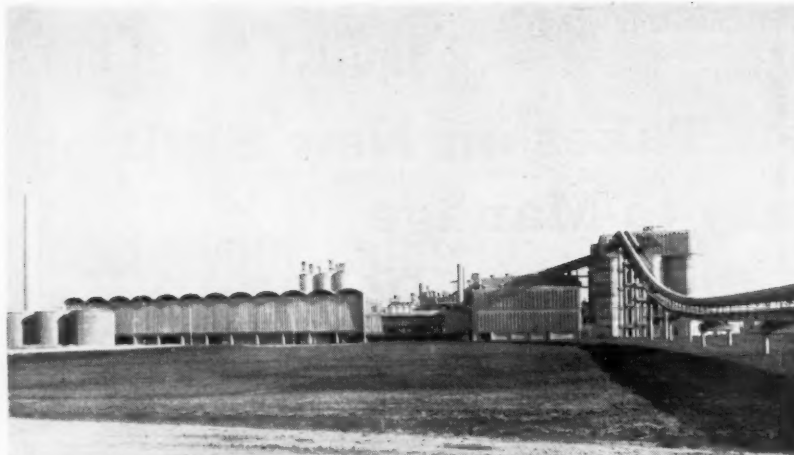
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Ideal's new \$20,000,000 plant at Ada, Oklahoma



5½-mile belt conveyor carries raw materials from the quarry to the plant

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the operator is out of business. It's like closing Macy's door."

It's not a simple process to make jukeboxes, which have become highly complicated electromechanical devices that take skillful design, constant quality control—which to Seeburg means 100% inspection of every machine.

• **Distribution Setup**—Just as big an asset as the company's manufacturing skill, says Coleman, is its distribution system. Unlike most merchandising vending manufacturers, who sell direct to vending machine operators, Seeburg had long-established distributors, 27 independent and well-heeled businessmen operating 45 distribution and service centers. Seeburg ships to these distributors according to a quota plan, with a firm order behind every shipment so that Seeburg has no finished inventory.

This strong distributor organization, Coleman believed, could be utilized to put Seeburg quickly into merchandising vending equipment lines. He has already made some changes, plans to add more distributors by cutting down on the size of territories.

• **Full-Line Concept**—Coleman's reasoning goes this way:

As the vending business grows, the full-line concept can't help but spread. Owners of vending locations—bars, restaurants, plants, offices—would far rather deal with one operator to service all the machines, instead of one for cigarettes and candy, one for music, one for cold drinks.

Operators will find themselves under pressure to add fuller lines. Hence they'll welcome a company that can provide them with every machine.

Seeburg's own distributors, most of whom have stuck to the music box business, now have the chance to add merchandising vending—plus business.

Coleman was ready to make his move, he says, "when the financial storm had passed."

He bought an electrical cigarette machine business, then a coffee dispensing manufacturer, and, last fall, a cold drink vending machine business.

In addition, he gave the go-ahead on a new music box and the manufacture of a new background music system for plants and offices. Seeburg had had a machine previously, but the new design—playing 1,000 tunes without changes—is built to compete in price with Musak, which uses leased telephone lines, and with FM radio systems.

All of this—coin-operated music boxes, the merchandise vending machines, and background music—fits into Seeburg's full-line strategy for his distribution system.

• **New Markets**—Coleman's purchase of Choice Vend, the bottle-dispenser producer, gives Seeburg another big market to crack—the 2,400 soft drink bottlers in the country. Vendo is his

*"Looks like
I'll be here all night, Boss,
there's not a garage open"*



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big competitor here, doing a large part of the Coke and Pepsi business.

To tap that market, Coleman plans to establish his own sales organization to sell machines directly to the bottlers. Chiefly his eyes are cast on Pepsi, a company that conveniently owns its own distribution in many major cities, and, hence, can place big orders.

• **Three Divisions**—To oversee his bulging business, Coleman set up three divisions—music boxes, vending, and background music.

The jukebox business—what with bad publicity from Congressional hearings early this year, a couple of badly designed machines on Seeburg's part, and the recession—had been stalled for the past couple of years. Seeburg itself lost market position. Now, with a new stereophonic machine that plays both 45 rpm. (rock 'n roll speed) and 33 1/3 rpm. (the quality record speed), Seeburg is preparing for a new boom in music.

In vending, Seeburg has completed its redesigns and improvements on the products acquired since 1958. It is out to get 17% to 20% of the market for all its lines.

As for background music, Seeburg already has signed up several major corporations, sees its big market in smaller-plant cities where it is too costly to hire lease-wired systems. Selling through its own distributors and local music store companies, Coleman expects to have 15,000 background systems on location within three years. Through its own custom-made record library it participates in the monthly rentals, amounting to about \$75 a month for each machine.

Coleman fairly gleams when he thinks about that steady income. His evaluation of the market may be optimistic, but Automatic Canteen agrees. Says Nathaniel Leverone, Automatic's chairman: "The background music field has a vast growth potential."

• **How Far**—It's hard to gauge just where Coleman will take Seeburg. "You never know what he's going to come back with," says Fleming Johnson, his production chief.

One good bet is an increased participation in electronics. Seeburg already does electronic subcontracting for Collins Radio, Western Union, and has a Sidewinder missile contract.

Then there are (1) more vending machines to come and (2) an overseas market; and (3) a Coleman plan to produce a \$1,500 stereo FM radio set for the home.

Those who have backed Coleman are impressed by his record to date. His yearend statement, released this week, shows a fat profit of \$1.9-million, equal to \$1.64 a share. Tax losses eliminate income taxes—and he still has \$3-million to write off. **END**

Styles Change, Glamor Remains

Sisters under the skin these glamor lasses may be. But—except for the glamor—times have changed in lingerie.

Kayser-Roth Lingerie Co. made this point convincingly when it ushered in the market and fashion press-periods (this is fashion press week) by unveiling its new spring line to the fashion press and buyers. The waist-clutching black corset and daring black and white petticoat of Lillian Russell (upper picture) and the hip-clutching satin that sheathed Millicent Rogers in the 1920's (lower left) are a far cry from the scant but fetching sleepwear of today (lower right). To make its point, the company went to the Brooklyn Museum for these heirlooms at its \$10,000 Kayser Kaypers in New York's Hotel Pierre.

• **The Purpose**—The showing had a severely practical target: to help boost sales for an industry that has not moved as fast as the economy as a whole. Pres. Philip Simon estimates that the total runs some \$700-million a year at retail.

New fibers, new processing techniques are already helping, Simon says. And he promises more wonders within the decade: disposable panties at low cost; fabrics that reflect the light of the outer garment and take on its color; and ("This is the moon," he comments, "but it's coming,") fibers with heating and cooling qualities to keep women at the temperature they want.



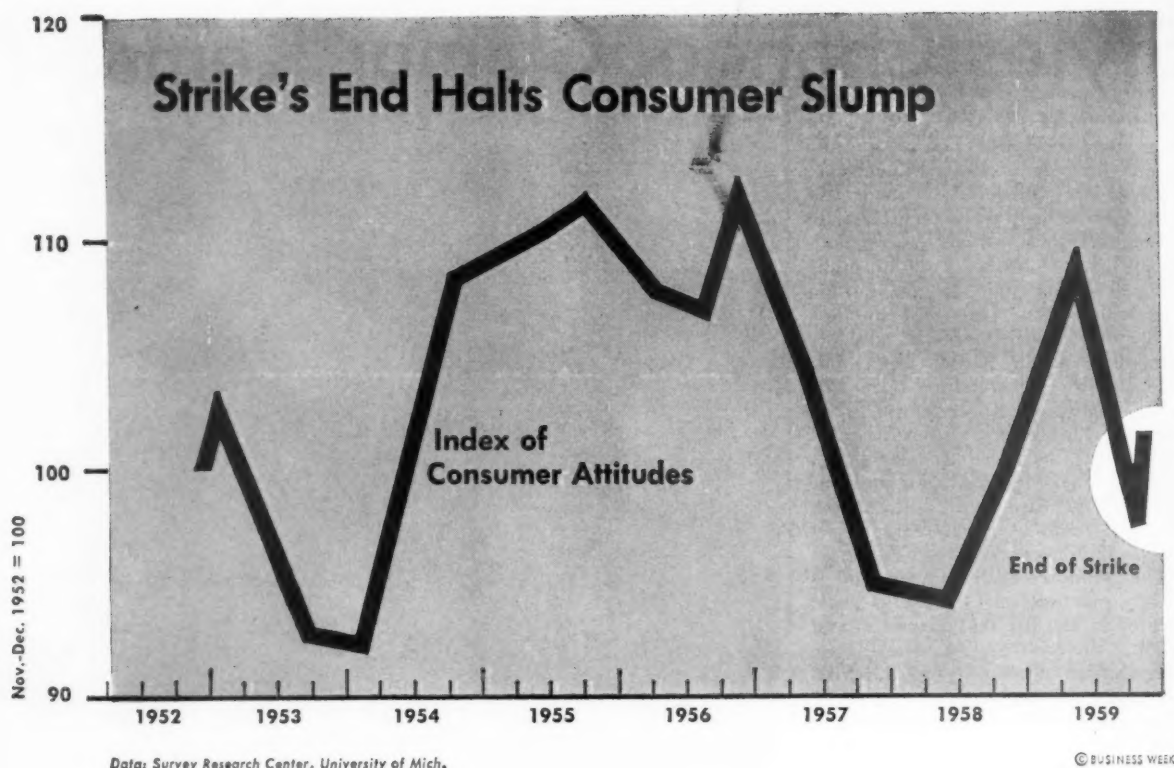
GAY NINETIES: "All bottoms and bosom" was the trademark of Lillian Russell's eye-catching under-armor. Old fashions were included with new at Kayser lingerie showing.



SLINKY TWENTIES: Elegance and world-weary sophistication mark Millicent Rogers' dream negligee of satin.



GOLDEN SIXTIES: Much more meets the eye today. But new fabrics, new comfort, old glamor may boost sales.



But They Don't Promise to Buy

The latest index of consumer attitudes says one thing plainly: As of November, 1959, the consumer wasn't in a frame of mind to shove the economy violently forward on his own. Further, concludes the Survey Research Center of the University of Michigan, "Consumer sentiment must improve considerably during the next few months if 1960 is to be a really good year for consumer durables."

Diagnosticians of the future must read the current chart with unusual caution. More than most surveys of consumer demand, this one hinged closely on current events—events that are now bygones. Like the previous surveys in this series, this one was based on interviews with a nationwide cross-section of some 1,300 adults.

• **The Strike Hurt**—The heavy drag of the index since the cheerful near-peak of last June conveys one thing primarily: The steel strike hurt. It hurt the pocketbooks of some; it hurt the spirits of more. And it hurt plans to buy big-ticket goods.

Strongest evidence of the strike's impact is the upturn at the tail end of the chart. Midway in the course of interviewing, the strike was ended by a Taft-Hartley injunction. The interviews ran from mid-October through November. After Nov. 9, when the

steelworkers went back to work, consumers felt noticeably better, on almost every count. The only component of the index—and it's a significant exception—that didn't rebound was the attitude toward rising prices.

By Nov. 9, the researchers had completed just about half of their interviews; they wound up the other half after that date. Since anxiety concerning the strike was clearly a factor in consumer attitudes, the researchers this time figured two separate indexes. For the first half of the interviewing period, the index came to 97.9; for the second half, it was 101.8. The average for the whole period—the point that normally would have been charted—was 99.8. In the chart above, BUSINESS WEEK followed the researcher's example, and charted two points rather than the over-all figure. That way, you get a clearer picture of the turnaround in attitudes during the interviewing period. But, since you also have a sample just half the normal size for each period, the figures are more susceptible to statistical error.

• **Not All Blue Sky**—Obviously, the end of the walkout did not completely clear the skies. Most people knew that the return to work meant only a truce, not a permanent peace. Fears that 1960 might bring a renewal of unem-

ployment and pinched pocketbooks undoubtedly helped keep the late November index lower than last June's—though still well above the 1957-1958 trough.

Now, in January, consumers know that this particular ghost has been laid. Whether that fact will bring the "considerable improvement in sentiment" that will make 1960 a good year the next survey—started last week—may tell.

The abrupt change in circumstances during the survey period may make an interpretation of the latest survey a bit academic. But not entirely. The marketer can still find clues as to where consumers are heading in 1960.

I. Short-Term View

The whys of the downturn since last June come clear in the consumers' answers to specific questions.

First, fewer people than in June felt they were better off financially than they had been a year before. Only 34% reported they were making more money: in June, 39% said so. And 31% "felt" better off in November compared with 35% who felt better off in June. Lay-offs and high prices got the bulk of the blame.

• **Less Optimistic**—Consumer's evaluation of business conditions reflected an even stronger disenchantment. Only

30% believed that conditions had improved over a year earlier, against 48% who felt that way in May-June. And 29% felt business had worsened; 14% thought so six months earlier.

Looking ahead, though, people were about as hopeful as they had been in the previous study. The percent who expected to be better off financially a year from now—33%—was just about as high as it was last June.

Although optimism about their own finances held steady, fewer consumers expected improvement in business conditions for the next 12 months than had expected improvement in June. Most were hopeful on this score: 61% expected good times, but that still represented a decline from the 66% who felt hopeful in June, 1959. The number who expected bad times increased a little—from 10%* to 13%. And more people—55%—looked for higher prices over the next year.

• **Hedge on Buying**—Faced with uncertainties, consumers pared their buying intentions between June and November. Plans to buy new cars, houses, and most major appliances sagged. Estimates that now was a good time to buy dropped, too.

The steel strike worked two ways against cars. The car shortage, as well as unease over the strike, got frequent mention as a reason for not buying now.

The short-range picture for car buying held some strong pluses, though. First, the feeling that now was a bad time to buy shifted after Nov. 9, and plans to buy cars ran "substantially higher" in the latter half of the interviewing period than in the first half. Second, over half the people thought the new compact cars would be popular, and a "sizable minority" apparently preferred them to the larger cars—or the foreign makes. Third, the second-car market continued to grow, and many potential second-car buyers felt the new cars would fill the bill.

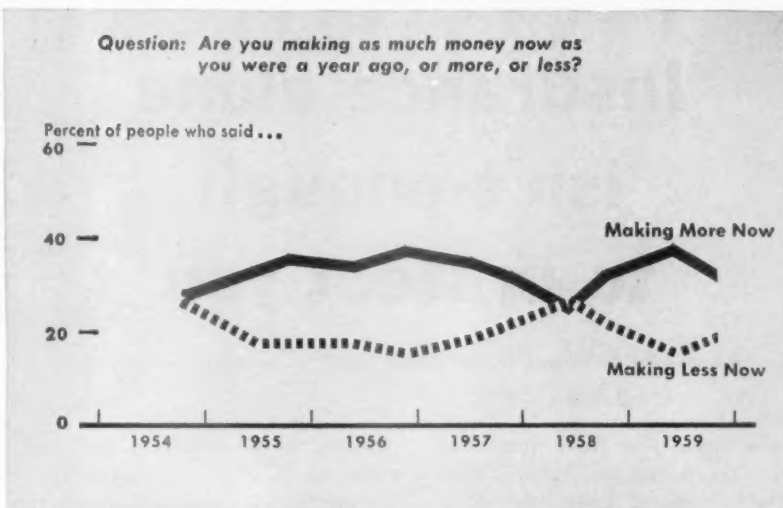
After a healthy jump in early 1959, plans to buy a house had declined sharply by late 1959. Here, steel did not get the full blame. High interest rates—58% of the surveys were alert to the rising trends here, a larger proportion than ever—and difficulty in getting loans contributed. Some 24% of all families surveyed felt that house financing had become harder.

On many appliances, as with cars, sentiment improved after Nov. 9. But the proportion of people who would like to buy, but saw only a slight chance—or no chance—of doing so, rose during the entire period.

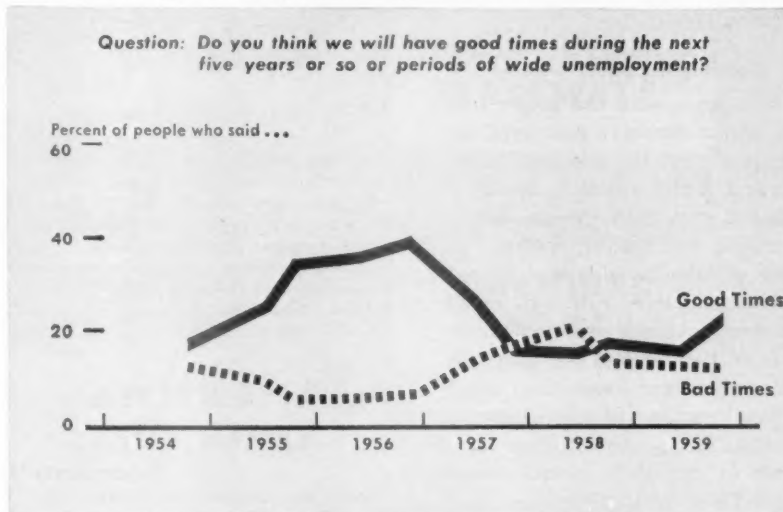
II. Longer Look

You might brush off all these findings by making the steel strike the goat and arguing that all will be different now

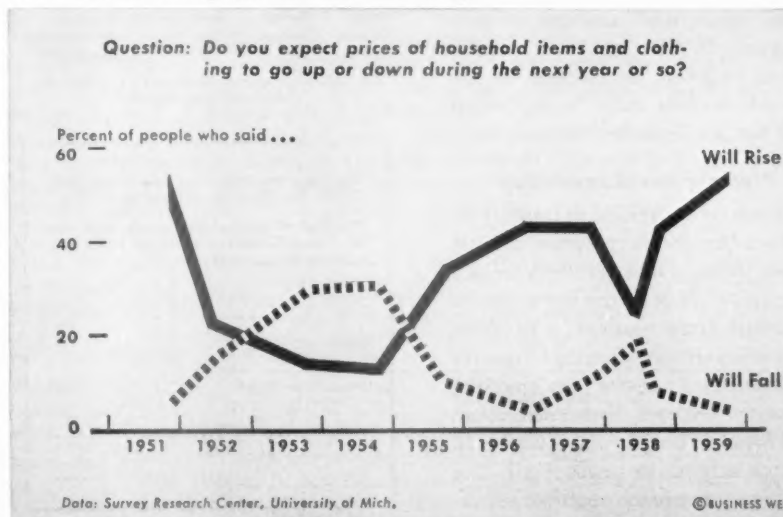
Fewer people are making more money ...



... But long-term optimism grows ...



... With rising prices still a snag



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Adapted from one of the Clients' Service Bulletins of The American Appraisal Company

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lishing the total value of the property for placement purposes and a property record that will provide the necessary details for preparing a proof of loss.

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that steel has finally made its peace.

This could be a dangerous assumption. The strike plainly can't get the entire blame for a slowdown in buying zeal. The consumers mentioned other bad news—the farm situation, inflation—and, importantly, they had fewer comments about good news than before. All these factors apparently contributed to a frame of mind that might outlast the strike settlement.

• **Price Bogey**—High on the list of short- and long-term bogies stand high prices. The number who expect higher price tags for the next year—and for the next five years—continued to climb. Especially among the \$5,000-and-up group, more inflation appears to be in the cards. More people than before—seven in 10—said without any qualification that rising prices are "to the bad."

The steel settlement certainly has not helped the prospects of lower prices. If price tags climb, it may take more pressure than before to get the consumer to part with his money.

• **More Installment Buying**—Nevertheless, you can find some encouraging signs in this latest study. People "overwhelmingly" still have plenty of wants and plans to buy goods—some day. While a smaller percentage than before talked about buying a house within the next few months, those who planned to buy later increased.

Installment buying apparently holds few fears for the consumer. More people than ever thought installment buying is a good thing. Of those who were making payments on some item at the time of the survey, 22% said they could take on new payments easily—though the answers varied directly with income.

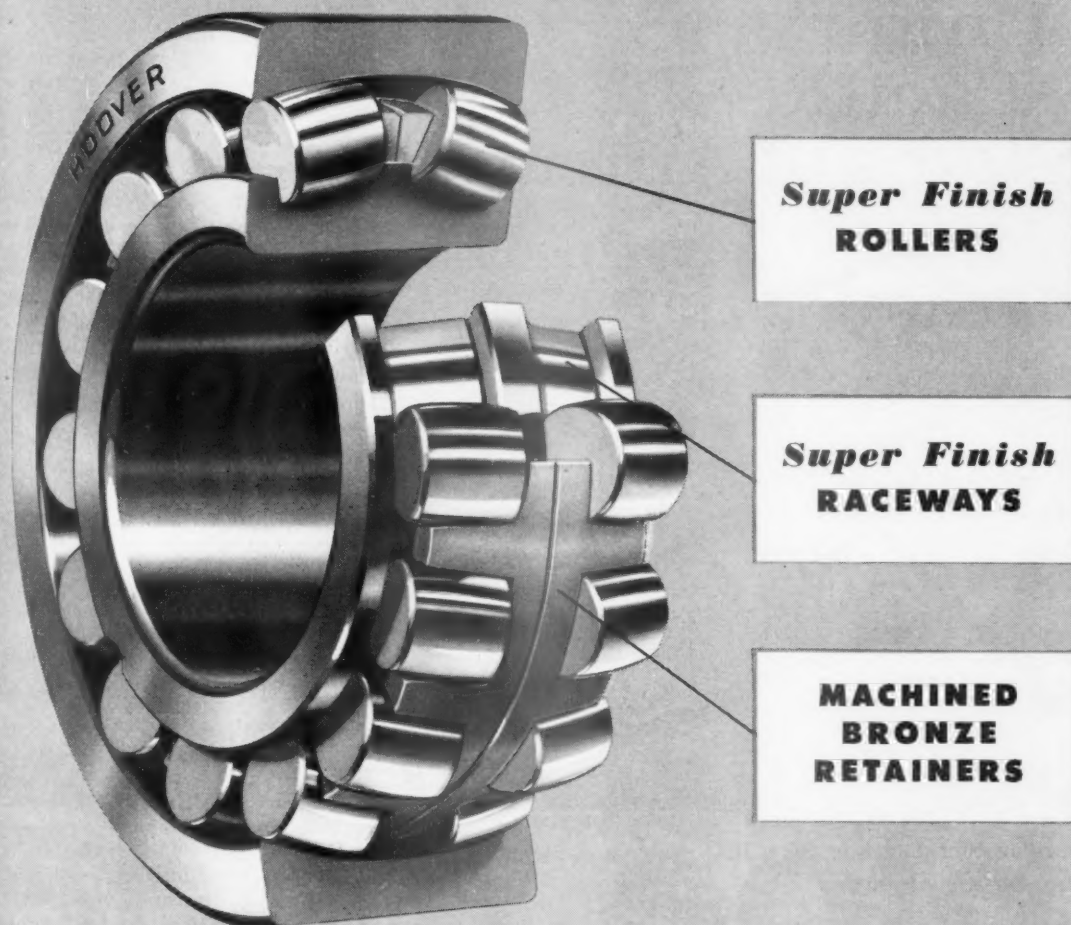
It turned out that many families that like the idea of installment buying aren't in debt now, or soon will be out of it. This might give new impetus to further buying. The researchers warn, though, that getting out of debt doesn't necessarily bring on a buying binge. In the first half of 1958, lots of people had finished payments on 1955 car purchases—yet new car sales failed to rise.

• **Five-Year Outlook**—Continued, and rising, optimism about long-run business conditions in the country as a whole must also count on the plus side of the ledger. The percent of people who expect good times for the next five years jumped perceptibly—from 17% in June to 24% in November.

It looks, then, as though marketers have a market that would like to buy, and, with the strike specter laid to rest, the most depressing single factor in the buying scene has faded. Even so, consumers gave no firm promise to go out and spend. The aftermath of the steel strike—if it is inflationary—may be the chief nut the marketers have to crack in the year ahead. **END**

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Both inner and outer raceways are *Super Finished* to match the smoothness of the rollers. Precision matching of rollers and raceways assures

low operating temperatures and long life.

Land-riding retainers are accurately machined from solid bronze for proper roller guidance and uniform load distribution.

Hoover Quality spherical roller bearings are available in a complete range of sizes and series in cylindrical or tapered bore. Return the coupon below for complete information.

Hoover

BALL AND BEARING COMPANY

5400 South State Road, Ann Arbor, Michigan

Zone Sales Offices and Warehouses | 8581 South Chicago, Chicago 17, Illinois
290 Lodi Street, Hackensack, New Jersey
2020 South Figueroa, Los Angeles 7, California

Hoover Ball and Bearing Company
5400 South State Road, Ann Arbor, Michigan

BW-1

☐ Please send Bulletin 113 which describes Spherical Roller Bearings.
☐ Have your representative call.

Name _____

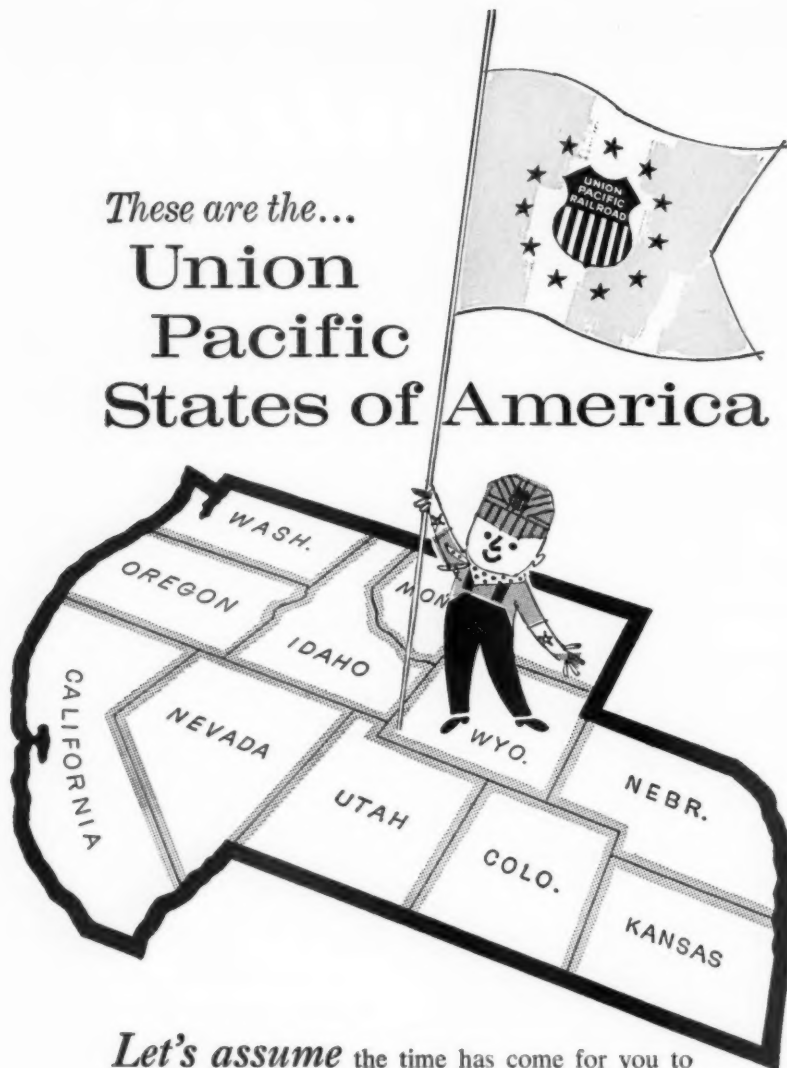
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Company _____

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These are the...
**Union
 Pacific
 States of America**



Let's assume the time has come for you to seek another plant site. It's a BIG problem . . . what are you going to do?

Here's an idea: In the Union Pacific States of America (11 western states that have just about everything industry needs) you are almost sure to find a plant site that's literally made to order for you.

So why not tell us what you have in mind? We, in turn, will advise what's available in the Union Pacific States. Simple!—and there's no obligation. Just get in touch with your nearest U.P. representative or address—

Industrial Development Dept.
UNION PACIFIC
Railroad
 OMAHA 2, NEBRASKA

Cozy Furniture

Chicago market finds manufacturers and retailers both optimistic—and cooperating on sales promotion.

At the home furnishings market in Chicago last week, manufacturers and retailers expressed a new optimism. Orders topped last year's. Forecasts of 10% gains for 1960 were not uncommon.

The general economic glad tidings helped. But closer manufacturer-retailer relations also got full marks. Common in many other lines, sales programs for retailers are something of a novelty in home furnishings. Some 45,000 of the retailers gross less than \$300,000 a year and can afford neither good promotion nor training. Manufacturers, too, run small. A company doing \$1-million annually spends maybe \$3,000 on merchandising kits, or \$9,000, counting catalogues and ad mats.

• **Bigger Slice**—The industry structure, an official of Tomlinson of High Point points out, explains why broad-scale efforts to get more of the consumer dollar have fallen flat. And the industry yearns for a bigger piece of the pie. Kroehler Mfg. Co. pointed out ruefully that almost as much is spent on boating as on furniture.

Individual industry leaders are tackling the job on their own.

Baumritter Corp. last year sold several hundred dealer kits to retailers, at \$50 a throw. The kits contain room layouts for its Ethan Allen line. Using pastcups of the line, a retail salesman can set up a replica of the consumer's home. Baumritter Pres. Nathan Ancell claims: "Everything being equal, a dealer who used our decorator aids often boosted sales 50% to 100%."

Troy Sunshade Co. supplies kits, costing \$18, to dealers, often for free. This material includes suggested room settings, upholstery samples, wall paper, finishes. Delker Mfg. Co. just introduced low-priced models of its modular lines, so retailers can demonstrate arrangements to customers. Flexsteel, Imperial Furniture, Daystrom, Drexel Furniture, and Tomlinson have all started programs. Bassett Furniture Industries uses dealer aids to get dealers to upgrade.

• **Obstacle**—Barcalo Mfg. Co., which has had a retail training program for three years, cites one obstacle, and a Broyhill official agrees. Unionized store salesmen often balk at putting in time on training when they aren't paid for it.

Companies demand, too, that their field people spend more time with customers. **END**



She's sold !

...and cellophane's "tailored protection"
made the sale more profitable

Protection, tailored to individual product needs, is just one of cellophane's unique combination of advantages.

Du Pont cellophane's tailored protection lowers the cost of a sale, because the packager can choose from over 100 different types...gets—and pays for—only the kind and amount of protection his product requires. And he profits from the repeat sales assured by proper protection of quality.

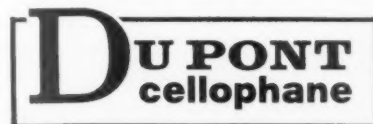
In addition, Du Pont cellophane offers the proven sales power of pure transparency, unbeatable efficiency on high-speed packaging machinery, unlimited flexibility of design and vivid color printing.

PROVE TO YOURSELF that cellophane can help "buy your market" at lowest cost. Ask your Du Pont representative to give you all the facts.

E. I. du Pont de Nemours & Co. (Inc.),
Film Dept., Wilmington 98, Del.



Better Things for Better Living...through Chemistry



In Marketing

. . .

Kresge and Penney Will Give Charge Accounts a Tryout

Two more of the traditionally cash-and-carry chain stores nudged closer toward establishing charge accounts last week.

S. S. Kresge Co. announced that it will test 30-day accounts in all its 68 Detroit area stores.

J. C. Penney Co. disclosed that it will convert all its stores to 30-day accounts within the next four years.

Kresge's move reflects a growing trend among the bigger "dime" store chains. Grant and Newberry have established charge plans for a number of their stores. Kress and Woolworth have been experimenting with the approach.

Trade observers cite several factors leading the variety chains into credit. They note that the chains have been moving into more expensive lines of merchandise and have been tending to feature more of the higher price items. And they point out that credit has become a must for the variety store which forms the nucleus of many a smaller shopping center.

Penney (which styles itself a junior department store) remarks that it has had to overcome considerable customer suspicion that the store will recoup the cost of credit in an increased markup. It finds the most noticeable reaction to introducing credit has been a shift in customer interest toward its higher price lines.

. . .

Benrus' Three-Year Guarantee Offer Starts Sales Moving Up Again

Benrus Watch Co. thinks it has scored a turnaround after five years of losing sales to price-cutting competition. Last year Benrus instituted a radically new three-year unconditional guarantee program on all its watches (BW-Jan. 31 '59, p45). Last week it reported some results of the program's first year of operation.

It reversed the sales downtrend—over-all, sales increased by 7%. Benrus had expected the program to pep up sales at the low end of the price scale, where discount competition is heaviest. Instead sales picked up all along the price line.

It encountered some resentment from dealers, who griped at having the factory assume all the repair business. Partly to mollify dealers—and partly to explain the complex program to consumers—Benrus this year will run its first print advertising campaign in 10 years.

Benrus found returns for repairs running about as estimated—1% of sales. The company considered extending the guarantee period up to as much as 10 years. It says most repair problems occur with quality movement watches during the first year. But it is sticking with the three-year guarantee since its consumer research unearthed the reaction that people would have refused to believe in a longer guarantee.

It revealed that the Watchmakers of Switzerland is considering establishment of a similar guarantee program covering all watches containing Swiss components.

. . .

Celanese Buys Textile Rights to Darvan, Goodrich's Unique Man-Made Fiber

Celanese Corp. of America has bought the rights to all textile applications of Darvan, a chemically unique man-made fiber, from its developer, the B. F. Goodrich Co. Celanese sees a near-term textile trade potential of 35-million to 40-million lb. per year. The fiber is selling for around \$1.45 per lb. "But," said Pres. Harold Blancke, "we hope we can prove that the price should be higher."

Celanese expects Darvan to find a market as a basic fiber in a variety of apparel, in both woven and knitted fabrics. The company will heavily stress the name Darvan which—since the fiber is unique—it will be entitled to use on ingredient labels under the rules of the Federal Trade Commission. It also considers Darvan "a possible vehicle for entering other market areas outside the U.S."

Goodrich developed Darvan as the unexpected product of research seeking a new tire cord material. After probing marketing possibilities, it concluded "there are only four companies successful in selling fibers to the textile trade—and each has a family of fibers." It picked one of the four, Celanese, noting further that "they have the textile marketing knowhow and the raw materials needed for Darvan."

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Marketing Briefs

International Business Machines has quietly dropped consideration of a \$2-million-to-\$3-million TV advertising program for the 1960 season. For weeks, the TV trade press has proclaimed IBM's contemplated move as the vanguard of a new march of institutional advertisers into TV.

American Motors—which successfully ignored styling obsolescence in the auto field—will try the same approach in appliances. American announced that it is discarding the annual changeover, will introduce changes on its Kelvinator lines only when they represent genuine product improvements.

The Grand Union Co. moved quickly this week to fill the vacancy caused by the sudden death of its president, Lansing P. Shield. It elevated its 59-year-old treasurer, Thomas C. Butler, to the post. But it also reactivated two jobs that have been dormant during most of Shield's tenure; John Raasch, former president of John Wanamaker, becomes board chairman and Louis Green, partner in the investment firm of Stryker & Brown, assumes the chairmanship of the executive committee. Observers see Butler as the logical successor to Shield. But some see him pulling Grand Union back from some of Shield's more daring experiments, such as supermarket credit or the extension of the Grandways program.

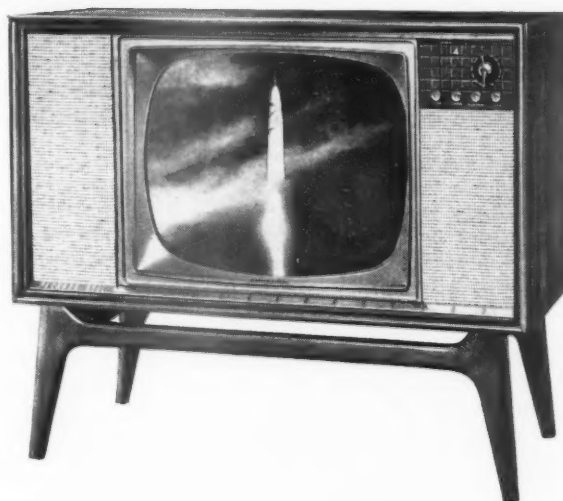
ENGINEERING BEYOND THE EXPECTED

FIRST "COMPUTER CONTROL" TELEVISION



This is the age of electronic miracles, when advanced technology for national defense and space exploration filters through to improve products for industry and the home. Such an innovation is "Computer Control" television by Packard Bell Electronics. By wireless remote control the new dialing technique flashes station numbers upon a visual display similar to that employed in commercial and military computers. Inspired by the Space Age, "Computer Control" puts the magic back in television... just as the magic of Packard Bell's "Trice" computer can evaluate the dynamic phenomena of nature *digitally, and in real time*—for the first time in history. Two examples of "Engineering Beyond the Expected" for home, industry and country... a Packard Bell Electronics tradition for 34 years.

To engineers of exceptional ability and earning power, Packard Bell Electronics offers *opportunities beyond the expected, too.*



Packard Bell Electronics

LOS ANGELES 64, CALIFORNIA



© 11-12-59 PB



How come one of the world's most important insurance companies is located in Wausau, Wisconsin?

The fishing's good near Wausau. It's only a stone's throw to where the deer run. Once in a while, they say, a lynx comes down from the north.

And it's the home of one of the world's most important insurance companies.

How come?

This was lumber country once. And lumbering was a hazardous business. 48 years ago a group of lumbermen joined together to pay the claims of injured sawmill workers under Wisconsin's new workmen's compensation law. The group came to be called The Employers Mutuals of Wausau.

Wausau is no longer lumber country. But Employers Mutuals has stayed. So have the men who guided the company from the very beginning.

How come?

Because they knew that something good had grown up there. A certain way of doing business that was good. An almost *personal* character. A fairness that bent over backward rather than forward. Policyholders and their employees kept saying that Employers Mutuals were "good people to do business with."

There was a "Wausau personality" about us that people seemed to like and we didn't

want to lose. We're a large company today. We write all types of casualty and fire insurance, and are one of the very largest in workmen's compensation. We have two reputations, born and raised in Wausau, that we aim to hold. One is unexcelled service on claims. The other is an accident prevention program that means lower costs to policyholders.

We're still "Wausau." But today there are offices of Employers Mutuals of Wausau in 110 cities. "A little bit of Wausau" is near you, wherever you live. And we're still good people to do business with.

Employers Mutuals of Wausau



"Good people to do business with"

INTERNATIONAL OUTLOOK

BUSINESS WEEK

JAN. 16, 1960

A BUSINESS WEEK

SERVICE

U. S. economic relations with Western Europe may become more tangled now that Pres. de Gaulle has dropped Antoine Pinay as his Finance Minister. Pinay's successor, Wilfrid Baumgartner, will be far more amenable to the Gaullist brand of economic nationalism, even though he has been Governor of the Bank of France for many years.

The shakeup in the de Gaulle government came this week right in the middle of a special Atlantic economic conference in Paris. This conference had been called to smooth out European and U. S.-European trade problems, and to plan for a joint aid effort in the underdeveloped countries.

With Pinay now out of the government, France's economic position won't be so solid as it was. Nor is it likely that the trend of French trade policy will be quite so liberal. It was Pinay who steered France's financial stabilization over the past 18 months and fought for a more liberal trade policy.

De Gaulle now will be able to push ahead with several of his own pet ideas. One is for a French force of nuclear bombers—a step in de Gaulle's plan to provide France with its own nuclear deterrent power. Pinay has opposed this because of the strain it would put on the French budget.

De Gaulle also wants to establish a new government oil corporation that would go into large-scale distribution in France. On top of that, he seems ready to insist that the six-nation European Economic Community (EEC) become a protected market for Sahara oil. Pinay has been opposing both these schemes.

Pinay and de Gaulle also have clashed on a purely domestic matter. De Gaulle wants to give the labor unions representation on the boards of private companies. He launched this idea—without any success—back in 1946. At that time he suggested that labor representatives should have a say not only in company operating decisions but in the distribution of profits. Apparently, de Gaulle hopes to keep the labor unions quiet this way.

At the very moment de Gaulle was dropping Pinay, the U. S. was trying to get backing from the Paris economic conference for some important new proposals on how the West should handle trade and aid. In brief, this is what Under Secy. of State C. Douglas Dillon was asking for:

- A study of ways to reorganize the Organization for European Economic Cooperation so that it would include the U. S. and Canada. The study would be carried out by a committee of "wise men," who would report back to OEEC in April. Dillon made it clear that Washington wouldn't be ready to consider membership in the new international organization until after the U. S. elections.

- Formation of an interim group of capital exporting nations that would meet from time to time to discuss coordination of aid to the underdeveloped countries. This group would call on the OEEC staff for any statistical information it needed.

- A working group, including the U. S., that would try to close the rift between Western Europe's two trading blocs—the EEC and European Free Trade Assn. At midweek there still was a battle over the composition of this group. But U. S. pressure seemed to be making the European countries more willing to seek an early solution of their trade squabble.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JAN. 16, 1960

Even if Dillon should get most of what he wants in Paris, he'll still have his troubles back in Washington. In pressing for a reorganized OEEC—to which the U. S. would belong—Dillon seems to be out ahead of the Administration. The Treasury isn't too happy about this proposal.

There's a direct link between Dillon's efforts to narrow Western economic differences and the upcoming East-West summit meeting. Both Washington and Moscow are busy now trying to mend fences—to get in the best possible position for summit bargaining.

Soviet Premier Khrushchev, for example, is working both inside and outside the Soviet bloc to strengthen his hand. He is tightening up his domestic propaganda machine. At the same time, he is pushing the satellite governments to tighten their grip. Then, he plans to tour India, Burma, and Indonesia in a move to repair the damage done to Communist prestige in South Asia by Red China's aggressive policies.

The flexing of military muscle on both sides is an equally important aspect of the pre-summit pattern. Moscow and Washington both seem to be trying to prove to the other that the alternative to some accommodation will be an expensive and dangerous speed-up in the arms race.

Note the long-range missile tests the Russians are planning to hold in the Pacific before long. Whether or not these tests are used to unveil some new Soviet achievement in rocketry, they will demonstrate Khrushchev's favorite thesis that the balance of power has changed in the world.

The Administration, on its side, announced this week an increase of roughly 30% in planned production of ICBMs and Polaris missile submarines. Although the extra money for missiles will be taken from other parts of the U. S. defense budget, this is still a warning that the U. S. is ready for bigger defense outlays—unless there's progress at the summit.

Meanwhile, the U. S. and U.S.S.R. are dickering over two concrete problems—a U. S.-Soviet lend-lease settlement and a ban on nuclear tests. The outcome of these negotiations may illuminate Khrushchev's intentions.

Moscow has good economic reasons for wanting to clear up the lend-lease issue, since this would lead to an easing of U. S. controls on trade with Russia. But Washington won't take a settlement as proof that Khrushchev will be amenable at the summit.

Agreement on a test ban would be more important. It would lead to the creation of a pilot inspection and control system that might become the model for wider arms control. The U. S. would be satisfied with a phased test-ban agreement—one that would start with control of atmospheric and underwater tests and would be extended to underground tests only after further research has made underground detection easier.

A crack in the Russian-Chinese alliance appeared this week in Iraq, as the two Communist giants maneuvered for control of the local Communist party. The rivalry came into the open when two Communist factions applied to the Iraqi government for official recognition as the Iraqi Communist party. The larger and better known faction is backed by the Soviet Embassy in Baghdad, while the Chinese Embassy is behind a smaller group that claims to represent true Leninist principles.



1 This bottle molded of tough polyethylene carries:
(a) alkali (b) acid for dry-shipped batteries
(c) water



2 They're big and juicy when polyethylene film is used for:
(a) packaging (b) mulching
(c) hothouse glazing

Can you pass this test on Polyethylene Plastics?

(You'll profit by knowing them better)



3 It's the new Atlantic cable, insulated with polyethylene for:
(a) dielectric strength (b) flexibility
(c) underwater identification



4 This muffin box is coated inside with polyethylene to:
(a) make it moisture-proof (b) prevent grease staining
(c) please the housewife



5 The familiar garbage can—a product polyethylene modernized:
(a) three ways (b) four ways
(c) five ways

ANSWERS...to an increasing range of needs are found in BAKELITE polyethylene plastics.

1. (b) Battery acid—unbreakable polyethylene bottles are inert to almost all chemicals.
2. (b) The mulch controls weed growth, keeps soil moist, berries off ground. Hothouse glazing and packaging could help too.
3. Check (a) and (b). It's water-proof, too, of course.
4. (a) and (b) are right—so (c) is a natural.
5. (c) Five important ways—non denting, light weight, integral color, less noise, and resistance to chemicals.

If you have questions—about plastics and their potential for your business—please ask us. We'll be glad to answer on the uses of vinyls, epoxies, phenolics, styrenes, and polyethylenes. Just write or call any of our offices or write Dept. AB-02A, Union Carbide Plastics Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. In Canada: Union Carbide Canada Limited, Toronto 7.





Temperature inside this TI Apparatus division's environmental test chamber is 14° F. TARmac radar environmental testing includes temperatures to 122° F and humidity to levels above 95%. These tests prove TARmac radar capable of continuous operation even if heating or air-conditioning system fails.

Texas Instruments readies Jet Age radars!

Take today's commercial, private and military aircraft, mix well over your airport, stir thoroughly with inclement weather, and you have a major air traffic problem that human judgment alone cannot solve! The Federal Aviation Agency (FAA), aware of the need to reduce field-approach congestion and minimize "stack-up" time, requested an all-weather radar system, one that would give coverage to five miles high at 60 miles distance! Responding to this need, Texas Instruments Apparatus division developed, manufactured and is installing airport surveillance radars (model ASR-4) for the FAA at 35 principal U. S. airports. TI tradename for this radar is *TARmac* — terminal area radar/moving aircraft.

Texas Instruments *TARmac* radar is the first airport surveillance system designed with jets in mind. Long before the sign "Fasten Your Seat Belt" flashes on, even in supersonic aircraft approaching from higher altitudes, *TARmac* radar is helping guide your flight "home." At the same time, it is directing you safely past other landing, passing and departing aircraft as well as navigation hazards.

Texas Instruments *TARmac* radars will be on the job 'round the clock, 365 days a year. All key equipment in

the system is in duplicate so that an inspection, calibration or repair may be performed without interruption of service. Greater reliability has been achieved by TI engineers with design of failure warning and protection circuitry plus the best assurance against possible failure — engineering and manufacturing of the systems to operate well within component capabilities.

First installation of this new radar is at a major metropolitan airport and will be completed in early 1960, with the others following rapidly. Whether in the arctics or tropics — wherever aircraft operate — so can TI's *TARmac* radar. Development and manufacture of this Jet Age radar system further illustrates TI's readiness to combine diversified technologies and experience to solve complex electronic systems problems. This quality has made Texas Instruments a leader in research, development, design, and manufacture of electronic systems in the Space Age.

TARmac airport surveillance radar systems are available to countries throughout the Free World when licensed for export by the U. S. Department of State.

TEXAS  **INSTRUMENTS**
INCORPORATED

HEADQUARTERS: 100 EXCHANGE PARK NORTH, DALLAS, TEXAS. **PLANTS:** ATTLEBORO, MASS. • DALLAS, TEXAS • HOUSTON, TEXAS • VERSAILLES, KY. • ELIZABETH SOUTH, SOUTH AUSTRALIA • ALMELO, HOLLAND • AVERSA, ITALY • BEDFORD, ENGLAND • BONNEVILLE, FRANCE • BUENOS AIRES, ARGENTINA • MEXICO CITY, MEXICO
OFFICES IN 72 PRINCIPAL CITIES OF THE WORLD

In Washington

• • •

IRS Hopes Salaried Taxpayers Will Make Do With New, Cheaper Form

Taxpayers are being urged by the Internal Revenue Service to accept some 17-million new streamlined income tax forms (1040W), which have just been mailed to them, without getting copies of the longer Form 1040. The new form can be used by individuals whose income is from wages and salaries, regardless of amount, and no more than \$200 in interest and dividends.

If the new forms are accepted by taxpayers, it will mean a saving to the government of 1-million lb. of paper alone, IRS says. But if taxpayers insist on getting copies of the old form for comparison, the saving will be lost.

• • •

New Kind of Superheated Power Reactor Approved for Puerto Rico by AEC

A long-sought construction contract for a nuclear-superheated power reactor—new to the U.S. reactor family—was signed on Tuesday between the Puerto Rico Water Resources Authority and the Atomic Energy Commission.

AEC officials announced that it had finally decided to go ahead with the project on the basis of extensive research and development work that proved the reactor technically and economically feasible.

The chief virtue of a nuclear superheat reactor is that it provides higher-quality and higher-temperature steam for turbo-generators. By means of complicated apparatus, the reactor's steam coolant will make a second pass directly through the central critical core region to boost its temperature before entering the generator. This means an improvement in over-all plant economics, as well.

S. L. Descartes, executive director of PRWRA, has announced that General Nuclear Engineering Co. of Dunedin, Fla., and Windsor, Conn., will build the boiling water, nuclear-superheated reactor. The company is headed by Dr. Water Zinn, often called the dean of nuclear reactor designers. AEC has been authorized by Congress to spend \$11-million on the nuclear portion of the powerplant, and PRWRA is to provide for part of the conventional generating equipment as well as the full site and operating costs.

• • •

Anheuser-Busch Agrees To Sell Miami Brewery

Justice Dept. antitrusters seem to have scored again in their use of the Clayton Act against corporate mergers that tend to reduce competition. Settlement of a case against Anheuser-Busch, Inc., is based on such tough terms as to discourage further mergers in the brewing business.

Anheuser-Busch agrees to sell a Miami brewery that it acquired two years ago from American Brewing Co. Meanwhile, it must continue to sell Regal beer, the brand produced in Miami.

Anheuser is permanently enjoined from acquiring any interest in any Florida brewery and, for five years, cannot acquire an interest in any U.S. brewery without first showing the courts and the Justice Dept. that the action will not substantially reduce competition in any market area. The three Florida companies are also barred from selling any brewery without giving 60 days' notice to the antitrusters.

The government suit, filed in October, 1958, was based on 1957 figures showing Anheuser the nation's largest seller of beer and second largest in Florida, with 21% of the state's sales, while the Regal brand accounted for 12% of Florida sales and ranked third in the state.

In 1958, the antitrusters got Lucky Lager Brewing Co. of San Francisco to agree to sell a brewery it had acquired. Another suit, attacking Pabst Brewing Co. acquisition of Blatz Brewing Co., is still on the calendar in a Wisconsin federal court.

• • •

Aviation Agency Head Serves Notice On Violators of Air Safety Regulations

Federal Aviation Agency Administrator E. R. Quesada made it clear this week that violators of air safety regulations are in for rough treatment. Testifying before the Senate subcommittee on aviation headed by Sen. A. S. Mike Monroney (D-Okla.), Quesada blasted at "pressuring" tactics he insisted are being employed by the aviation and union lobbying groups to get safety rules more favorable to them than to the public. Quesada told the Senate committee: "Let me say here and now that I refuse to be intimidated."

The committee will delve into the whole airways problems including such areas as aviation safety, traffic control, and pilot qualifications. Industry and representatives of airline pilots also will give their views on the matter of safety.

A series of new safety programs also was unveiled by FAA this week. They include details on a \$118.2-million program to modernize air navigation and traffic control, new requirements for radar equipment on planes, and tighter rules on consumption of alcoholic beverages on planes.

• • •

Proposed Labeling Bill Spells Out Actual Costs of Financing "On Time"

Sen. Paul Douglas (D-Ill.) has introduced a consumer credit labeling bill, with the backing of "liberal" senators and many consumer groups. The bill will get a hearing by the Senate Banking & Currency Committee.

The Douglas bill, S. 2755, is intended to provide consumers with simple information on the actual costs of financing when they buy on time. The bill would require that a consumer be furnished with a written statement showing (1) total finance charges, and (2) annual interest rates on any credit transaction. The Federal Reserve Board would handle its rules and regulations.



Eastman 910 Adhesive solves another production bottleneck

The Rhine Craft Corporation, of Brooklyn, N. Y., introduced recently a line of costume watch jewelry...pendants, pinfarbs and bracelets.

Key to low manufacturing costs was a fast, simple method of mounting the watch case to the jewelry base. Soldering proved too slow and costly.

The answer was found in quick-setting, high-strength Eastman 910 Adhesive.

The adhesive is applied to the jewelry base and the watch case is set in place. *Within minutes, a permanent bond is formed.* The bond is so strong the gold-plating separates from the watch case when it is forced out of the jewelry base.

Eastman 910 Adhesive is making possible faster, more economical assembly-line operations and new design approaches for many products. It is ideal where extreme speed of setting is important, or where design requirements involve joining small surfaces, complex mechanical fasteners or heat-sensitive elements.

Eastman 910 Adhesive is simple to use. No mixing, heat or pressure is required. Upon spreading into a thin film between two surfaces, setting begins immediately. With most materials, strong bonds are made in minutes.

What production or design problem can this unique adhesive solve for you?



For a trial quantity (1/3-oz.) send five dollars to Armstrong Cork Co., Industrial Adhesives Div., 9101 Indian Road, Lancaster, Pa., or to Eastman Chemical Products, Inc., Chemicals Div., Dept. B-1, Kingsport, Tenn. (Not for drug use)

THE MARKETS

How the Analysts Be

● They're all agreed business will be better than ever—but for the market, they split the year in two.

● Most see stocks climbing to 700 or 750 in first half—but after that, the majority see a decline.

● For individual winners, they lean to investment grade issues, with plenty of disagreement on top performers.

Up and down Wall Street this week, stock market analysts are king. Their rise in influence during the postwar years has been largely due to their ability to pick and choose potential profit makers—and in a decade of rising prices this wasn't too hard a task. So this week, with the market in a somewhat wayward mood, many eyes are focused on the analysts as they indulge in the annual game of forecasting stock prices for the year ahead.

This year's market trend, they report with usual imagery—and dissimilarity—is as hard to chart as ever. They diverge on the market's full-year course in spite of a unanimous opinion that business will be better than ever—but then analysts tend to stick together when it comes to plotting basic economic trends. This year, though, they seem to be branching out more than ever to find individual issues that might do better than the crowd.

• **Splitting the Year**—For the first part of the year, at least, there is a good deal of agreement. Most analysts figure that, despite this week's selloff, the market will continue rising—though at a slower rate than in 1959. Using the Dow-Jones industrial average as a yardstick, most analysts think that stock prices will poke their way above 700, perhaps climb to 750. They think that investors, buoyed by a high level of business activity and record earnings, will assure that much of a climb.

After that, analysts take different paths. Most think that stock prices—anticipating a rolling recession of the 1956-57 pattern—will decline in the last six months; some say gradually, some say by 25% or even more. Others think that stock prices will merely seesaw the rest of the year. A minority feels stock prices will show a moderate increase, supported by an over-powering business boom.

All insist, however, that two unpredictable hang over the market—the summit conference and the Presidential elections. As Armand Erpf, head of research for Carl M. Loeb, Rhoades & Co., puts it: "As long as these two

factors exist, the market's tone will be uncertain. They hold the balance."

• **Winning Groups**—Splitting the year in half, as most analysts have done, molds their thinking on which specific stock groups and stocks will outperform the market. Last year at this time, there were two schools of thought. One held that cyclical stocks, which stood to benefit from the business upturn, would do well. The second figured, wrongly in some cases, that those groups that lagged behind the market in 1958—such groups as chemicals, oils, and metals—would better the averages.

This year, though, analysts are leaning more toward investment grade stocks. They tend to think of these in terms of first-half stocks—which would do well in the aftermath of the steel strike—and second-half stocks—which might offer a defensive cushion if needed.

Those analysts who think stock prices will rise, and then decline, pick the steels, rails, and nonferrous metals as first-half gainers (when inventory restocking will be at full speed). They switch to defensive issues, such as the foods and retail chains, for their second-half choices. Those who think the boom will carry over into 1961 focus more on capital goods stocks—including favored Yale & Towne and Borg-Warner—for their second-half selections.

• **Risks and Worries**—More than ever in the 1958-59 bull market, however, stock analysts favor more conventional stocks whose price-earnings ratios are historically conservative. They feel the market is definitely entering the last stages of the bull market, and they believe that the risk of a drop is greater than it has been since 1957. The only way to protect against this risk, they say, is through purchase of quality blue chips and issues that appear undervalued. There's little interest right now in the "romance" stocks selling at high price-earnings ratios.

Despite their rosy view of business' first half, analysts admit to some gnawing doubts. Tight money worries them most. They fear it will choke off busi-

stBet for 1960 Market

ness spending, and put a damper on stock prices as big institutions switch to bonds from equities to get higher yields. The high level of stock prices, by itself, causes brow-furrowing also. Too, increased use of credit, as Joseph Mindell of Marcus & Co. says, puts a brake on enthusiasm because of the boom-and-bust memory it evokes.

I. Push From Steel Pact

Nevertheless, all but a few analysts say investor psychology is still overwhelmingly favorable to equities, and they believe this attitude will carry stocks to new record highs. Most back the shares of steelmakers, due to rebound from the prolonged strike, as the surest bets. From a statistical point of view, they predict the industry will produce close to 130-million tons in 1960, and this means lush earnings for all steelmakers. From the technical side, they point out that all great bull markets ended with steels—and rails—getting one last fling.

The big companies gain most favor. Merrill Lynch, Pierce, Fenner & Smith, for example, likes U.S. Steel, Bethlehem, Republic, and Jones & Laughlin; of the four, Bethlehem is favored. Glenn Munn of Paine, Webber, Jackson & Curtis, prefers U.S. Steel, Jones & Laughlin, and National Steel. On the more speculative side, he leans toward Colorado Fuel & Iron. (Munn is one of the more pessimistic analysts on how far the market will slide later this year and next.)

There's strong sentiment for a few smaller companies, as well. Walter K. Gutman of Shields & Co. thinks Sharon Steel's new plant finally gives it the added capacity it needs. Amott, Baker likes McLouth Steel. Others say that Copperweld is working on new processes which could bring big rewards.

Only a few analysts have strong misgivings; one of these is Herbert Berger, of Sutro Bros., who thinks steels have "topped out."

• **What About Rails?**—The rails fit into much the same pigeonhole as steel shares, since the settlement assures them of a sizable increase in traffic. But loud dissenters feel that though the rails may be reasonably priced, they have too many surrounding problems to appeal to big investors.

A wave of popularity for the rails, however, is predicted by James Hughes of Auchincloss, Parker & Redpath. Paine, Webber's Munn goes along, favoring Southern Pacific and Norfolk & Western, with Illinois Central and Sea-

board as outside bets. Alan Poole of Hemphill, Noyes has a particular yen for Chicago, Milwaukee, St. Paul & Pacific. H. Hentz & Co. believes rails will do well, since so many of them now yield over 5% and a number plan to increase their dividend.

Merrill Lynch, on the other hand, has its doubts; and other analysts feel featherbedding, wage costs, excess track-age all will work against the rails.

II. Lining Them Up

Nonferrous metals are also regarded as good buys by most analysts. H. Hentz points out that aluminum stocks are far below their highs. Goodbody & Co. notes that coppers are selling about 14 times 1959 profits, compared with 17 times earnings early in 1959, and that many yield over 5%. It feels that copper will be in short supply over the next three or four months, and that Anaconda and American Metal Climax should benefit most.

But there's disagreement here, too. Sutro's Berger feels copper stock will do well only for a few months, at best. Hughes doubts Alcoa will see its 1956 high of 133 this year.

• **Controversial Oils**—The biggest dispute centers on the oil shares, which have lagged behind the market. A majority thinks they could very well lead the 1960 market, as the industry's statistical position brightens and profit margins turn up. Merrill Lynch is one of these. Walter Maynard of Shearson, Hammill, and Hanns E. Kuehner of Laird, Bissell & Meeds, also commend them to bargain hunters.

The international oils, except for Royal Dutch, aren't heavily touted. But a number of domestic companies get good backing. Phillips Petroleum and Amerada are two top favorites; Continental, Texaco, and Honolulu get a handful of votes, too. Oil Statistics Co. also leans toward some of the smaller specialty companies, such as Pauley Petroleum, Coastal States Gas, Tuboscope, and Plastic Applicators.

A vocal minority is skeptical. Benson Sloan of Harris, Upham & Co. feels oil has outlived its period, that other sources of energy are replacing it. "From here on," he says, "oil shares will sell on a yield basis, not on their old growth potential." Gutman of Shields says, "Oil shares will be dull this year."

• **Mixed**—Mixed receptions also are given the auto stocks, drugs, airlines, and chemicals. Some analysts look for airlines to turn in rich earnings as

passenger loads pick up. But A. M. Kidder & Co. thinks the introduction of jet airliners by all major lines will heighten competition and reduce load factors, causing strains on some of the airlines.

Sutro's Berger is very high on chemical stocks, and believes they could show the year's most dramatic gains. (Air Reduction and Monsanto are high on his list.) But others think chemicals have reached a cyclical high, will settle down along a pedestrian track.

• **Second Half**—Building shares and stocks of capital goods producers divide the honors as second-half choices. Maynard of Shearson, Hammill feels building shares are reasonably priced, as does Berger of Sutro. So does H. Hentz, although it notes that residential building may be in for a rough 1960.

• **Caution on Electronics**—Surprisingly, electronic stocks, which most analysts consider the best qualified for long-term growth, attract few backers for the short term. Some feel they have exciting possibilities, but most claim the electronics were overbought last year and now are extremely vulnerable. Erpf cites Ampex's recent 30-point drop, and Sloan of Harris, Upham admits that "their price-earnings ratios terrify me."

But within the group, analysts find many special situations for prospective future profits. Gutman speaks glowingly of High Voltage Engineering, Control Data, and Perkin-Elmer. Berger admits Fairchild Camera, ready to market its new sound home movie camera, is not a bargain at \$140, but feels its high earnings rate still warrants purchase.

The search for such special situations is keener than ever. Analysts growing more cautious about the second-half are on the lookout for situations that will do well regardless of what happens to the market.

• **Other Choices**—Meat packers are figured to have a strong year. Argus Research Corp. goes along with several experts who think Swift will turn in the best record.

Alan Poole thinks Philips Lamp is about the best of a strong European crop; he suggests that U.S. investors look abroad for top quality stocks at reasonable prices. Poole also likes Lerner Stores as a sleeper in the merchandise field.

Berger of Sutro looks toward stocks in the leisure group to outdistance the field, thinks Owens Yacht might be one of the big leaders. Gutman and S. B. Lurie of Josephthal & Co. go back to American Telephone & Telegraph as one of their top favorites—partly because they feel it will increase its dividend early in 1961. **END**



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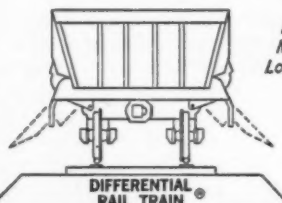
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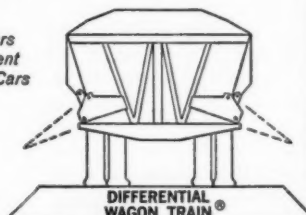
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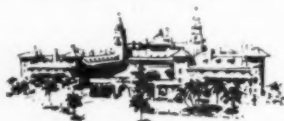
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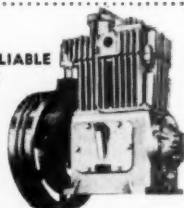
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Wall St. Talks . . .

. . . about chances of
Photon merger, higher com-
missions on odd-lot bonds,
Swan-Finch Oil Corp. spurt.

Insiders look for Photon, Inc., to merge sometime this year. The company, which has lost money in the last nine years and is best known for its high-speed photographic composing machine, needs capital for development and expansion. One interested company is high-flying Fairchild Camera & Instrument.

Mounting individual interest in government securities is leading bond dealers to hike commissions on odd lot sales to as high as \$3.75 per \$1,000 bond on orders for \$25,000 or less, compared to the usual \$1.25. Dealers say the boost is needed to offset losses on small transactions, which have been rising. Normally, the big bond houses make money by wholesaling blocks of bonds on razor thin margins.

Public relations man David Charnay, who took over medium-sized Clinton Engines Corp. (annual sales about \$35-million) as a "special situation" last August, is planning a public stock offering. Charnay wants to pay off \$3.2-million in loans from the Walter E. Heller Co. that now cost Clinton 1% a month in interest. New working capital will allow the company to pay its bills on time and save about \$200,000 a year in trade discounts. It will also permit expansion of its finished goods inventory to eliminate sharp seasonal swings in manufacturing.

Over-the-counter dealers were surprised by the sudden spurt in bankrupt Swan-Finch Oil Corp., one of the companies raided by fugitive financier Lowell M. Birrell. In just two days, its price doubled—from 30¢ to 60¢ a share. Behind the buying, brokers say, are rumors that a big Swan-Finch stockholder has agreed to invest \$250,000 or so to aid in the rehabilitation of the company.

The fickle capital market has underwriting houses puzzled. Commercial Credit and C.I.T. Financial Corp. both came out with debenture issues, priced to yield 5 1/4%. Commercial Credit's bonds sold out fast, but C.I.T.'s underwriters are still holding part of the issue. And, a \$120-million New York State Power Authority offering was "out the window," while a \$25-million issue of Chesapeake & Potomac Telephone Co. is reported to be less than one-third sold.

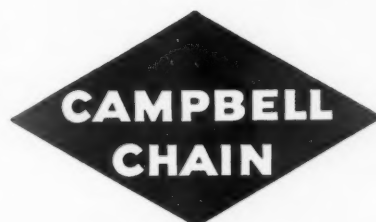


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In the Markets

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Mutual Fund Management Companies Must Give SEC Data on Ownership

Within the next few weeks, the Securities & Exchange Commission plans to enforce a new set of rules requiring detailed disclosure of the relationships between the nation's mutual funds—with \$15-billion assets—and their investment advisers or management companies. By taking this step, it hopes to avoid more direct policing of fund managements.

During the past year, the SEC became alarmed by the public sale of stock by insiders in these management companies, which make their money by charging a fee—usually $\frac{1}{2}$ of 1% of assets yearly—to oversee the investment of mutual funds. It has also expressed concern over the fees themselves, contending the costs of running a \$50-million portfolio do not rise proportionately when the assets climb to \$500-million, and while $\frac{1}{2}$ of 1% is valid in one case, it may be too high in another.

What the SEC proposes is to require that mutual funds in their proxy material provide detailed information on the management company ownership, size of the fees, and background on the directors. Key idea is that full disclosure may have an inhibiting influence on funds' directors.

However, the SEC cannot go beyond this without asking Congress for added authority, which it may do. It now has no authority to set management fees, can only require that funds' shareholders vote to approve an advisory contract if control of the company changes hands.

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Small Investors Rush to Banks To Buy One-Year Treasury Bills

A rush of small investors into the Treasury bill market this week caused a lot of additional paperwork, but did not bring a significant change in the level of yields.

Alerted by news reports that they could get 5% or better on their money by bidding on the \$1.5-billion one-year Treasury bills, investors flocked to commercial banks or Federal Reserve banks to put in their orders. New York's Chase Manhattan Bank, for example, reported some 2,400 individual bids amounting to \$30-million. But the purchases were small—mostly in the \$2,000 to \$4,000 range—and the enthusiasm didn't spread beyond a few big cities.

As a result, the total bids of \$2.3-billion were only slightly higher than those for the usual \$1.5-billion weekly auction of three-month bills. And the \$348-million in noncompetitive bids—those small orders awarded at the average price—was considered average, well below dealers' estimates of \$500-million or more. It was plainly a case of smoke rather than fire.

There wasn't the enthusiasm exhibited for the "magic" 5% Treasury notes, sold last October, but the small investor did better in terms of yield. The bills will pro-

vide 5.07% figured on a 360-day discount basis, which is equal to 5.36% on a 365-day interest yield basis. This was only a little lower than early estimates. After the auction, the Treasury bills slipped in price so that discount yields moved up to 5.09%, canceling out any possibility of "free-riding" by investors who needed to put up only 2% of purchase price before the payment date: three days after the auction.

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Stocks Show Little Bounce After Sharp Price Decline

Stock prices plunged this week in the steepest decline since last September bringing to an early end the rally that began in late December. Prices, as measured by the Dow-Jones industrial index, declined from the all-time high of 682 to below the 660 level, before steadying. A broad list of issues were hit, with steels and electronics taking biggest price cuts.

The decline—and the absence of a snapback rally—was another indication that the market's bullish phase is ending. Previous declines have always been followed by a resurgence of buying that quickly brought the averages past their previous peaks. This time, bargain hunters have been less in evidence.

There's little danger, however, of a serious and prolonged fall. The business picture appears too bright, and while investors are obviously more cautious, they have not caught fright. Brokers say that few of their customers are attracted by the high yields now available on bonds; some institutions, notably bank-managed trusts, are paring down equities in favor of bonds, but most of the individuals going into the bond market are not refugees from the stock market.

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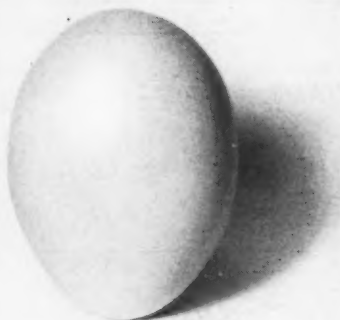
Rise in Nonferrous Metals Prices Expected as Demand Surges

Nonferrous metals held the spotlight in the commodities market this week. Settlement of the steel strike set off a wave of demand for lead, zinc, and copper. Metal prices firmed across the board.

Zinc rose $\frac{1}{2}$ ¢ to 13¢ a lb. under buying pressure from galvanizers and diecasters. Stocks of zinc in December were at their lowest point in two years, and shipments showed a sharp increase. Industry sources say stocks also should fall in January in the wake of continued increases in shipments.

Demand for lead at 12¢ a lb. was reported as the most active since last August, when the price was at 13¢. There were two $\frac{1}{2}$ ¢ price cuts last month. But with European demand still strong, and U.S. battery makers increasing their purchases as auto output accelerates, a rise in lead price may be in the offing.

Copper may also see a price hike. Dealers say demand is rising while supplies dwindle, partly because strikes are keeping several mines closed tight. Custom smelters appear to be moving toward a 36¢ a lb. price. The big producers now are quoting 33¢ a lb., and it would not be surprising if this price would rise, too, if the smelters' spread increased.



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How Steel Terms Compare With

Both sides had to back down, but steelworkers gained on some fringe benefits and the companies on changes in c-of-l raises.

As details of the steel settlement circulated about the country late last week, it became more and more apparent that neither the union nor the industry won a clear-cut victory. Management failed to gain major objectives it had set for itself—particularly changes in contract language covering work practices. But the new agreement is still far from bad for management.

Last weekend, an official of a major industrial union commented drily: "McDonald won a great victory—but it certainly didn't put much more in the pockets of the steelworkers."

His was a typical union reaction to the steel agreement (BW—Jan. 9'60, p26,p76). Bargaining specialists in other unions seem to feel that what United Steelworkers actually won is less significant than the fact that it won as much as it did against allied employers.

• **Few New Goals**—The steel union negotiators set out, last May, to win a sizable settlement. They were confident that the industry's greatly improved economic conditions in 1959 and the rosy outlook justified big gains.

The union's confidence ebbed in the face of management's tough anti-inflation stand. It retreated at least three times on demands. At the climax of bargaining two weeks ago, the demands were only a thin shadow of what they had been.

Few employers in the steel industry—or in industry generally (page 26)—are happy about the concessions that had to be made by the industry in reconciling final offer-demand positions (table, right). Steel employers had to settle for more than they wanted to. Nevertheless, they succeeded in holding their increase in employment costs to a lower figure—and rate—than in any other postwar steel agreement.

As a result, USW negotiators, led by the union's president, David J. McDonald, set few new goals for other unions to aim for. They made no significant new strides on wages; steelworkers, who got their last raise July 1, 1958, will not get an increase in hourly rates until Dec. 1 of this year. The raise at that time, an average 8.6¢ an hour, is in the pattern of wage increases already negotiated elsewhere.

USW did make breakthroughs in a number of fringe areas, and these may influence bargaining during 1960 and

into 1961. However, they are not expected to become major issues at negotiating tables for at least a year—if then.

• **Fringe Gains**—The major fringe gains for USW in the new agreement are:

• A noncontributory insurance plan, sought by the steel union since 1949 and strongly resisted by the industry to the day of the settlement.

• A lump-sum payment on retirement, to ease transition into the pension period; this may go as high as \$1,500 for high-wage steelworkers.

• Improvements in insurance and pension programs. Sickness and accident benefits will go up an average \$11 a week, to range from \$53 to \$60 a week. Life insurance will be increased by \$500, to \$4,000 to \$6,500, according to wage level. New provisions are made for extension of insurance during layoffs. And pensions are increased and earlier retirement is made easier.

Union bargaining strategists now seem most interested in the noncontributory insurance plan won by USW—although it's not exactly new, since United Mine Workers and other unions have had fully paid insurance provided in contracts for several years. The United Auto Workers, which bargains with auto employers in 1961, has demanded noncontributory insurance many times before—and now is almost certain to do so next year.

The lump-sum retirement payment will give other unions something to think about; demands for similar plans will begin coming up at bargaining tables—and it's likely that the pressure will be for different, costlier arrangements than those in the steel pact.

• **Curbs on C-of-L**—Actually, what the steel union gained seems to have generated less excitement in labor than a concession it made to the industry.

The new steel contracts place important restrictions on the operations of cost-of-living clauses. A ceiling is set on the size of adjustments to be made this Dec. 1 and on Oct. 1, 1961—once a year, instead of semi-annually as in the past. Moreover, increases in insurance costs beyond a specified level will be offset—on a formula basis—against allowable c-of-l raises.

Other unions—again, notably UAW—are worried about employers insisting on similar c-of-l limitations and offsets. One labor economist, important in bargaining for his union, called USW's concessions a "dangerous precedent."

The steel companies were rocked by unanticipated c-of-l adjustments under their 1956 contract—17¢ an hour in raises from August, 1956, through Jan. 1, 1958. They determined to limit

are With the Industry and Union Demands

"Last Offer" at T-H Hearing	Union's Demand	Terms Accepted
EXPIRATION: Sept. 30, 1962; no retroactivity	June 30, 1961, and retroactivity	June 30, 1962, expiration and no retroactivity
WAGES: 6¢ payable Oct. 1, 1960, and Oct. 1, 1961 Also, 0.2¢ increment increase on Oct. 1, 1960, and Oct. 1, 1960	7¢ July 1, 1960; new negotiations July 1, 1961 Same increment increase on July 1, 1960	7¢ Dec. 1, 1960, and on Oct. 1, 1961 0.2¢ increase Dec. 1, 1960, and 0.1¢ on Oct. 1, 1961
COST-OF-LIVING: Increases Oct. 1, 1960, of 1¢ to maximum 4¢ if real wages drop 10¢ to 13¢—nothing if less. Adjustment of 1¢ to 4¢ Oct. 1, 1961, if loss in real wages is 7¢ to 10¢ or more	4¢ "due" Jan. 1, 1960; no changes from c-of-l clause in the expired contract	Nothing until Dec. 1, 1960. Adjustments Dec. 1, 1960, and Oct. 1, 1961, but no more than 3¢ first year, over-all 6¢. Maximum reduced if insurance costs exceed specified figure
INSURANCE: Present and anticipated hospital-surgical benefits to be shared; employer to pay full cost of life, sickness, accident benefits. Numerous revisions in total benefits proposed, including \$500 increase in life coverage, higher sickness-accident benefits, and plans for continuing policies in layoffs, after retirement	Companies to pay all insurance costs, ending contributory plans; effective retroactive to Nov. 1, 1959 Similar revisions for the most part, but on less restrictive basis	Companies will pay full costs as of Jan. 1, 1960 Revisions as proposed, with some compromise of terms
PENSIONS: Effective Jan. 1, 1960, credits of \$2.40 a month for all years before Nov. 1, 1957; \$2.50 from then to Jan. 1, 1960, and \$2.60 for future years. Pension credits up to 35 years No special retirement bonus Full pension for those terminated at or after 55 due to shutdown, layoff, or illness if employee has 25 years' service or more No increase for present pensioners	Credits to be \$2.50 per month for years before Nov. 1, 1959, and \$2.60 in the future. Pension credits for maximum 40 years At retirement, employee to receive lump-sum payment equal to vacation pay for three months Same, applicable to all who have 15 years' service \$5 more for pensioners	\$2.50 for each year before Jan. 1, 1960, and \$2.60 for each year thereafter for up to maximum 35 years 13 weeks of vacation pay (less any used in year) on retirement. Pension begins after the three months Same applicable to all with at least 20 years' service \$5 more for pensioners
SUB: Cancel accrued contingent liability and pay 5¢ an hour into funds instead of present 3¢ cash and 2¢ on contingent basis Numerous revisions proposed, to tighten SUB operations	Retain principle of 5¢ maximum cost: 3¢ cash and 2¢ contingent, to be paid only if needed Numerous revisions asked to expand SUB plans	SUB financing continued on old basis, with a contingent 2¢ payment Parties to negotiate on further changes
WORK PRACTICES: Elimination of contract language that bars changes to improve efficiency, cut labor costs; arbitration of grievances on a limited basis	Retain restrictive contract language and write it into contracts where it isn't included now; set up a joint committee to study work practices, automation, technological changes	Present clauses retained; joint committees will study work practices and make recommendations by Nov. 30, 1960 — but changes can be made only by mutual agreement
AUTOMATION: No changes in contract language that gives employers free hand in technological developments	Retraining, job opportunities, earnings protection, severance pay for those affected by automation	Provisions of the old contract are retained
OTHERS: Tighter curb on "wildcat" strikes, more flexibility on vacation scheduling, etc.	No changes in these areas	Demands were dropped by management



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future "inflationary" escalation, and won a major concession in this direction. Through June 30, 1962, steelworkers will receive no more than 6¢ in c-of-l adjustments—and even that maximum may be cut.

• **Two-Way Protection**—The steel industry contended that just as employees are protected against rising living costs by c-of-l formula, employers ought to be protected against unanticipated rises in costs of medical, surgical, and hospital insurance.

The industry won its point. A formula in the new contracts provides that the allowable maximum payment c-of-l clauses will be reduced slightly for every 18¢ increase in the cost of the U.S. Steel's insurance program. The U.S. Steel cost was taken as the industry benchmark to assure continued uniformity in payments for the others.

The union demanded a 4¢ "catch up" adjustment in pay on Jan. 1 of this year, contending it was due under c-of-l terms of 1956 contracts continued in effect by the Taft-Hartley injunction order. This payment was traded off in the settlement for noncontributory insurance.

• **Contact Money**—As far as money goes, the new steel contracts mean a few cents per hour more for steelworkers—some estimates say 6½¢, some say 9¢. This is their saving under the non-contributory insurance plan, the amount deducted from paychecks before and now being paid by employers.

They'll get an average 8.6¢ an hour more in December and roughly 7.7¢ an hour on Oct. 1, 1961.

The workers received a 1¢ an hour c-of-l raise early in 1959, and they may get as much as 6¢ an hour more in c-of-l adjustments through June, 1962.

Compared with the past, these add up to smaller cash gains won in hard bargaining by the union. In 1956 the three-year settlement called for a 10½¢ wage boost followed by two raises of about 7½¢ an hour at one-year intervals.

The steelworkers also won unlimited c-of-l gains and hefty fringe package in 1956. Without estimating for c-of-l increases, the direct economic benefits over the three-year period totaled more than 45½¢ an hour.

The industry has estimated the package cost of its settlement this year at 41¢ an hour, but this includes 6¢ in anticipated c-of-l increases and a 2¢ supplementary unemployment benefits figure that actually does not represent a new cost to the industry. Deducting these, for comparison with the 1956 total, the 30-month cost will be 33¢ an hour, against a 36-month cost of 45½¢.

• **More Savings**—Even this is not a complete reflection of the industry's savings under the new contracts. It won a respite against higher costs in 1959;

increases were not made retroactive. And it will have substantial savings as a result of new c-of-l timing.

Most industrial contracts provide for quarterly adjustments of wages to the government's index of living costs. Former steel contracts called for semi-annual wage reviews and changes. The new agreements provide for adjustments only on Dec. 1, 1960, and Oct. 1, 1961.

That's an important difference. Say prices rise steadily through the year, at a rate that would cause a 1¢ c-of-l increase quarterly. Under quarterly adjustment plans, employers would be committed to pay a penny more in wages the second quarter of the year, 2¢ an hour more during the third quarter, and 3¢ for the last three months of the year. Under a semi-annual plan, employers would be committed to pay 2¢ an hour more the last two quarters of the year.

A Truce in Labor Reform Legislation

Unions won't fight current legal restrictions; nor is Congress expected to impose further curbs this year.

"Our motto this year: 'Don't touch Taft-Hartley.'"

This remark, uttered in cynical good humor by a political strategist for AFL-CIO, will not be found anywhere in labor's formal legislative program for the new session of the 86th Congress. Nevertheless, it is a terse reflection of both the attitude and prospects for organized labor this year on Capitol Hill.

The last prospect for broad labor legislation went out the window with last week's settlement of the steel dispute. When that happened, demands for a change in Taft-Hartley's national emergency strike provisions quickly cooled off.

• **Welfare Goals**—Union leaders are already looking beyond the session of Congress to the November elections. Much of their political effort this year will be geared to the union vote for a President and congressmen who might be more receptive to their aims.

As a result, the AFL-CIO legislative drive—which began this week—will concentrate on welfare issues. Led by federation Pres. George Meany, some 600 delegates from 45 states got together for three days to lobby among themselves and key congressmen.

• **T-H Amendment**—Twelve of their goals are "social legislation." The thirteenth calls for a quick dip into the Taft-Hartley Act for a single amendment to help building trades unions.

This Taft-Hartley amendment, the experts fear, could get out of hand in Congress and react against them. But, they will risk an attempt to cash in on a

pledge made in the last session by key Congressional leaders for a single amendment for the craft unions. It would permit them to picket a construction project—a practice that is now banned, in effect, under Taft-Hartley's secondary boycott restrictions.

Meany bluntly warned his troops: "We can expect no constructive improvement in labor-management legislation from the 86th Congress." On the construction amendment, however, he noted Congress' promise and said: "We expect them to redeem it."

Certainly, the subject of T-H won't be ignored. Sen. John F. Kennedy's Taft-Hartley committee of labor specialists is about to report on a year-long study of the labor-management law. The indications are, however, that it won't deal with new amendments but rather on how labor and management can use the law more effectively.

AFL-CIO expects its 12 legislative demands will be favorably received by the election-minded Congress.

• **Minimum Wage**—Probably the biggest gain, from the viewpoint of labor leaders, will be in changes in the minimum wage law.

The AFL-CIO is backing the Kennedy-Morse-Roosevelt bill, which went through the Senate labor subcommittee last session. It proposes a \$1.25 minimum wage and would add 7.5-million new workers to the law. Most of these employees are in the retail trades, hotels, laundries, and other service industries.

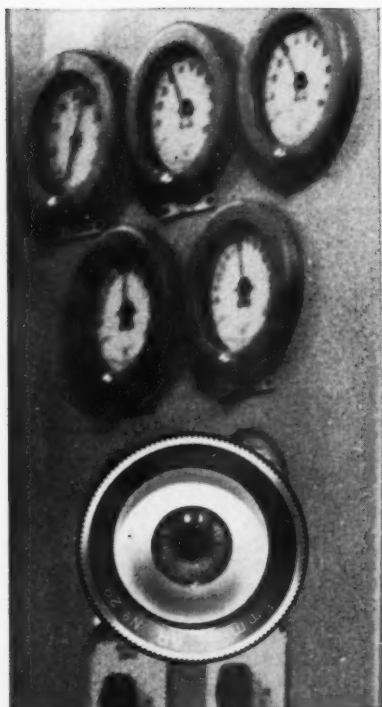
Last session, the Eisenhower Administration opposed a higher minimum

But, under the new steel timing, employers aren't committed to a c-of-l raise until December, on the basis of an October index reading. The 3¢ that would be due then under this example would be payable for only one month in 1960.

The same thing is true through 1961. If costs continue to go up, they will have an effect on steel wages much later than they would under other forms of c-of-l clauses.

• **Better Reaction**—The first reaction to the steel settlements was somewhat unfavorable. Criticism of its "inflationary" impact was quick and widespread. But this was clear: The industry achieved a part of its objectives of limiting cost increases—and it certainly could not be blamed, as it had been often in the past, for giving in too easily to heavy union demands with the prospect of passing its higher costs along to steel consumers.

Last session, the Eisenhower Administration opposed a higher minimum



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rate, but favored adding about 3-million retail workers.

The likely outcome is a compromise law—one that would bring in new employees but perhaps not under the law's full umbrella.

• **Depressed Areas**—Two labor goals would help the jobless. The AFL-CIO is returning with an aid-to-depressed areas bill which the Senate passed last session but which was stalled in the

House Rules Committee when Congress adjourned. The target is \$200-million in loans to depressed areas and another \$175-million in federal grants to chronically depressed areas to hold industry.

Unions also support a proposal to provide unemployment compensation standards which would require that state jobless payments be at least half the worker's minimum weekly wages, for a period of not less than 39 weeks.

Portland Papers Weather Strike

Rival publishers put out joint edition as walkout by Stereotypers and other unions goes into third month. They seem sure of victory as circulation and ads hold up well.

Until last November, Portland, Ore., was one of a dwindling number of American cities that support two rival newspapers. The morning Oregonian and the evening Oregon Journal were hotly competitive and differed widely on many issues.

Today, as a debilitating strike drags on into its third month, Portland is a one newspaper town. The competing papers are being published jointly as their managements recruit and train replacement staffs. When that task is completed—sometime around Mar. 1—the two papers plan to resume their separate ways. But many of Portland's newspaper readers wonder if it will ever be the same again.

• **The Issues**—The strike began on Nov. 10 when the publishers—the two papers negotiate jointly with the unions—and the Stereotypers quarreled over the proposed introduction of a new machine, to be operated by one man and to do work now performed by four men. The Oregonian, owned by Samuel I. Newhouse, wanted the Stereotypers to sign a contract stipulating that the machine would be operated by one man. The publishers offered to arbitrate if the union felt that one-man operation was unfair after the machine was in use. The Journal, operated by a trusteeship for the Jackson foundation, backed its rival.

The union refused this demand along with two others—an employer demand for the right to hire substitutes and one that would leave the question of whether a foreman is to be a member of the union up to the foreman.

• **United Front**—The dispute between the Oregonian and Journal managements and the Stereotypers is fairly typical in the printing trades, where technological changes are breaking through union-erected barriers. And, like many such disputes, it quickly involved other unions.

The often divided and jealous newspaper unions refused to cross the picket

lines thrown up by the Stereotypers.

Normally, a strike of all 10 newspaper unions will close down a paper. The Portland newspaper unions also counted on the rivalry of the publishers to keep them apart, and figured that a strike early in the two best months of the newspaper ad year would force management to capitulate quickly.

• **Publishers Join Forces**—But management didn't take the count. The papers missed only one day of publication as a staff was hastily recruited.

Management, apparently, now has all the cards to play out the game its way. The Teamsters are delivering newsprint on schedule. Since the unions chose a weak issue over which to strike, public sympathy seems to be with the publishers. At any rate, the papers haven't suffered the circulation loss that usually comes in the wake of a newspaper walkout. Ads, too, have held up.

• **Stiffer Terms**—Indeed, management now has stiffened its demands. It says that all contracts have been voided by the strike. It will not discharge any of the people it has hired—and trained—as replacements though the publishers say they are willing to take back as many strikers as they may need.

The unions have given up all their demands but one—the manning of the new machine. All the signs point to management victory.

• **Possible Effects**—Although Portland's newspaper readers can look forward to a resumption of the publication of the two newspapers, many believe that the strike will have lasting effects. Newhouse has expressed interest in buying the Journal. Reportedly he can't because of the terms of the will setting up the trust that now operates the evening paper for the Jackson foundation.

So, Portland will still have two newspapers. But whether the two publishers will resume the hot fight for circulation that characterized the two papers before the strike remains to be seen. **END**

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In Labor

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Subcommittee Suggests Ways for NLRB To Speed Handling of Appeal Procedure

A subcommittee of the National Labor Relations Board this week recommended a series of procedural changes to expedite delays in handling appeals to the full five-man board. At the same time, a year-end run-down of NLRB operating statistics showed that processing time for unfair labor practice cases had been cut one-half in 1959.

NLRB records show that the number of complaints filed rose from 672 in 1958 to 1,119 in 11 months of 1959. Yet, the time devoted to handling the average unfair labor practice case was cut from 127 to 57 days.

However, when the appeal procedure is resorted to, it takes a total of 400 days before a final decision is handed down. The recommendations by a committee headed by board member Joseph A. Jenkins suggest the time might be cut by 30%. Major suggestions would:

- Limit NLRB's review of any case to those points raised in the appeal. Appeals would be limited to cases that might set a precedent, or where the precedent is not clear, or where examiner's factual findings are in error.
- Require appeals to pinpoint exceptions to the examiner's decision and give trial examiners greater leeway to dismiss cases where there appears to be no real issue.
- Impose stiffer controls on company and union representatives who come before the board and impose penalties for misconduct.

• • •

Oil Workers Concede Management's Rights On Job Descriptions and Assignments

A 191-day strike ended last week at American Oil's Texas City refinery when Oil, Chemical & Atomic Workers International Union leaders backed away from demands that infringed on management prerogatives. The strike began June 30, after protracted negotiations, in support of union demands for a voice in writing job descriptions, and making job assignments.

Management contended that these functions could not be bargained away. In the final settlement, the management rights clause remains the same as in the previous contract.

The language of the work assignment clause was clarified. The new contract also calls for improvements in fringe benefits.

• • •

Contractors and Union Set Up Seminars To Make Electricians More Cost-Conscious

Electrical contractors in New York City, with union cooperation, hope to absorb the cost of a two-year, \$10.5-million wage and fringe package by making elec-

tricians cost-conscious. The electrical employers announced this week that contractors would join with leaders of Local 3, International Brotherhood of Electrical Workers, in "efficiency seminars" for \$4.45-an-hour journeymen electricians.

The Joint Industry Board of the Electrical Industry and the union recently agreed on a 25¢ hourly wage hike effective Jan. 1, with another 25¢ an hour due Jan. 1, 1961, for 10,000 electricians in construction work.

To absorb the cost, the Joint Board plans to spur automation and the use of power-driven tools, to reduce coffee breaks and other time wasters, and to effect efficiencies in deliveries and the use of equipment.

• • •

International Harvester Works Out Deal To Compensate Workers at Closed Plant

International Harvester Co. and the United Auto Workers last week agreed to provide extra benefits at a cost of \$4-million to employees who will lose their jobs when the McCormick Works in Chicago closes.

The company plans to shut down the plant now employing some 3,300 over a three-year period. The farm implement firm and the union agreed:

- All McCormick employees will be given first choice at jobs for which they qualified over new hires at other McCormick plants in the Chicago region.
- Employees who retire between ages 60-64 will get double the amount of the reduced pension they would be entitled to—since 65 is the normal retirement age. Before going on pension, they will get full supplementary unemployment compensation—a maximum of \$30 a week in addition to state jobless pay—paid by Harvester.
- Separation pay benefits will be paid on a higher schedule and speeded up. The union estimates the average separation payment to be \$1,500.

• • •

Machinist Campaigners for Right-to-Work Sue Union for Reinstatement and Damages

Can a union member campaign politically in opposition to a stand taken by his union without courting expulsion for "disloyalty"? This week, a California court was asked this question in a suit for reinstatement and damages brought by two members of the International Assn. of Machinists.

The two unionists—Cecil C. Mitchell and John Mulgrew—were ousted last May because they campaigned in 1958 for a proposed right-to-work amendment to the state constitution. Protected by Taft-Hartley, they have continued to work at Lockheed Aircraft Corp. But they say co-workers and former friends now snub them and they fear that they have little chance for obtaining jobs elsewhere because of the union's action. They are asking \$85,000 and \$86,500 respectively in damages.

The union contends that the two machinists advocated right-to-work in "a manner openly hostile to the union and disparaged their union officers." A labor union, argued an IAM attorney, "has an inherent right to expel for disloyalty."

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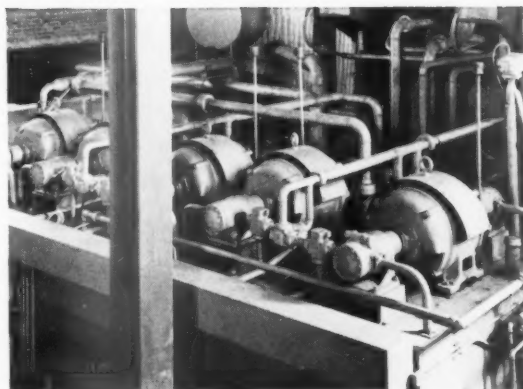


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In a scrap salvage yard in Chicago, this huge press smashes automobiles into five-foot bales. Here's how it works. Stripped autos are shoved into a 20-foot press box. At the flip of a switch three giant plungers jam down with a force of over 1000 tons. Result: A compact bale, five feet long and two feet deep. About 30 cars an hour are run through this giant baling press.

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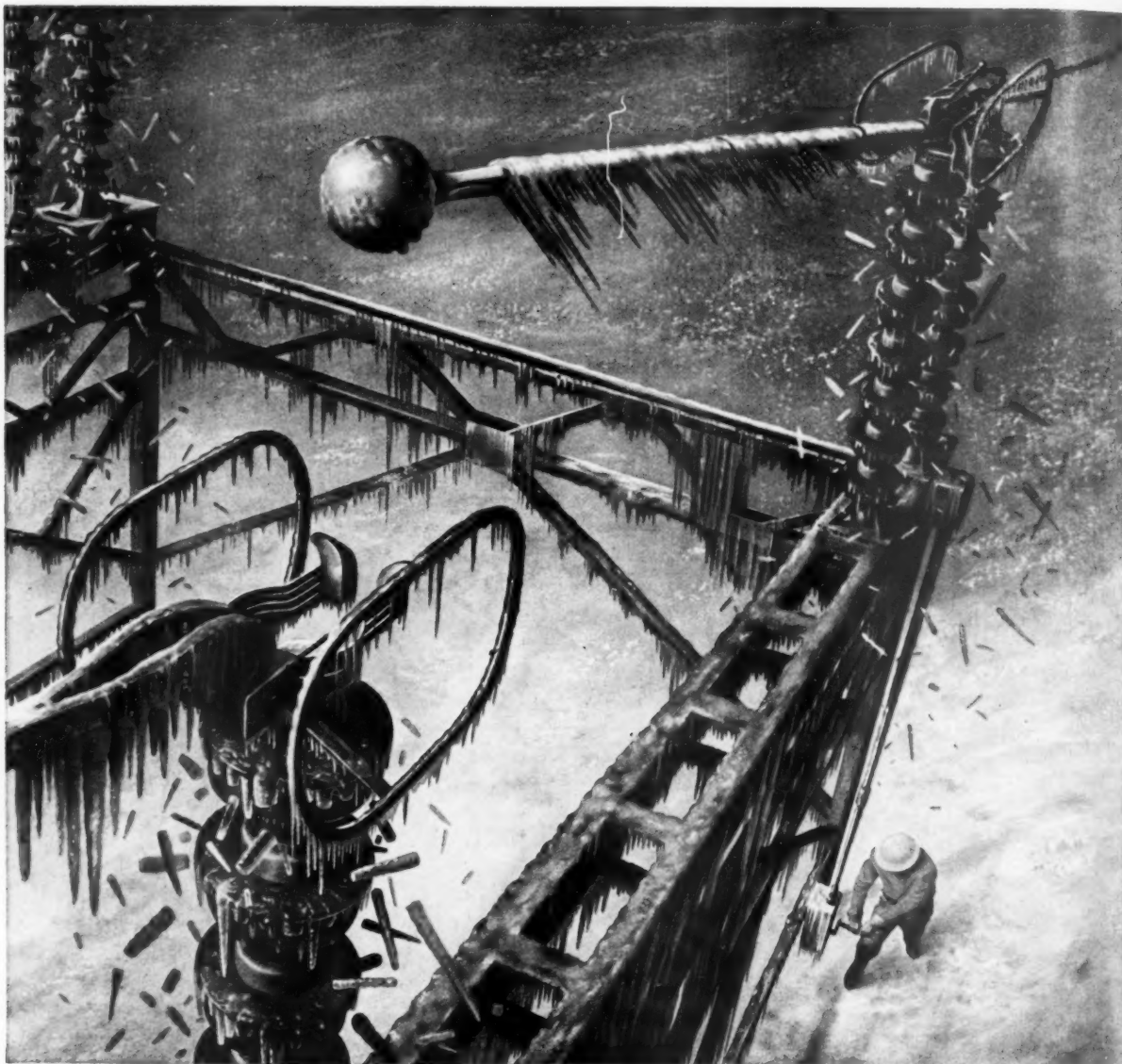
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Winter brings the menace of ice that power utility men dread. But I-T-E switches smash out with almost summertime ease. Here, Ned Seidler paints the dramatic moment when the icy bonds are shattered.

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I-T-E CIRCUIT BREAKER COMPANY

PERSONAL BUSINESS

BUSINESS WEEK

JAN. 16, 1960

A BUSINESS WEEK

SERVICE

Have you ever considered the idea that "workman's compensation" might some day benefit you or your family?

Few executives even think of this. Yet, come a crisis, they are often surprised to find that not only are they covered by the compensation law, but that large amounts of money can be involved. Biggest boon: unlimited medical expenses in many cases—in some states, New York for example, these tabs frequently hit the \$25,000 to \$50,000 range.

In many states, all employees, including most executives, are covered by the compensation laws. The statutes date back to the 1910-21 era, and were enacted partly to overcome problems that arose from employee-employer lawsuits.

To be "covered" means simply that you, or your family, collect benefits if you are injured "while working"—and the definition here is quite broad. In a current Massachusetts case—this gives you an idea of how liberal some states are on the subject—a businessman died of a heart attack while golfing with a client with whom he hoped to clinch a deal. The state accident board decided that his widow was entitled to permanent weekly compensation.

In non-fatal cases, you get direct payments to compensate for loss of earnings, and medical and related expenses. Weekly benefits for loss of earnings range roughly from \$30 to \$100, depending on the state.

If you die, your family collects the income compensation allowed by the state and left-over medical bills are paid. Frequently, widows receive the benefits for life, for as much as \$25,000 to \$50,000, or even more.

The weekly benefits are all the more important because workman's compensation is not subject to federal income tax, nor are your Social Security payments reduced by the amount of any state compensation you may receive. Another "plus" is the fact that other kinds of insurance that cover you personally (life, major medical, and so on) will pay off as usual, and their payment will have no effect on state compensation.

Here's a brief rundown of basic questions that point up the standards of "coverage" under most state compensation laws:

- Does an actual employer-employee relationship exist? "Employee" means you are under control of the company—not merely an "independent contractor" or a professional performing a service. An employer cannot be an employee of himself, so partners and business owners usually are not covered. An officer of a corporation is covered in many cases, depending on state law and the facts of the case.

In some states, certain kinds of workers are excepted, for instance, "casual" or temporary employees. But note that an employee isn't "casual" even if he works only a day or two a month—which is important for the semi-retired consultant, or maybe the 60-plus executive who is tapering off his company activities.

- Can the injury or ailment be traced to "an identifiable occurrence"? A broken bone, for example, would be covered by the law; but an occupational ailment—such as lung disease caused by working in an office adjacent to a chemical plant—probably wouldn't be covered. Note: You can usually recover for the serious effects of a slight injury, even if you had a pre-existing physical condition that made you prone to the serious development—for example, where you have a history of heart disease, suffer an emotional crisis in the office, and have a coronary which puts you out of action.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

JAN. 16, 1960

• Was the injury caused by your own wanton disregard for safety? Negligence normally won't preclude your recovery of compensation. But if you show an almost willful disdain for life and limb—for instance, flying the company plane alone through a severe storm, despite warnings—you might lose out. These cases turn on their facts—and proof.

• Was the incident related to your work? Obviously, an injury suffered during office hours, on company premises, would be likely to qualify. But a big advantage is that the rule broadens for the business traveler, at least in many states. If you are attending a convention, for instance, you still would be within the scope of your employment—thus, a hotel fire, spoiled food from a restaurant, or a fall suffered in a darkened theater to which you had invited convention delegates, might entitle you to compensation. Entertainment activity, of itself, doesn't rule out recovery. An injury suffered during a usual business lunch probably would qualify. And working at home, evenings or weekends, would fall within this concept, too.

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You can now exchange Series E or J savings bonds or Series F bonds issued after Jan. 1, 1948, for Series H bonds at current redemption values. The exchange can be made on a tax-deferred basis if the redemption value is at least \$500 (BW—Nov. 28 '59, p162). And the annual purchase limitation of \$10,000 on H bonds does not apply.

Under the exchange plan just announced by the Treasury, you can make the bond transfer without having to pay federal income taxes on interest accumulated at transfer time. The tax on the interest is deferred until your new H bonds mature or are redeemed before maturity.

The exchange offering is being made to accommodate holders of E, F, or Js who want to receive current income from savings bond investments. Interest accrued semi-annually on E, F, and J bonds can be collected only by redeeming the bonds; interest on H bonds is paid every six months.

A point to keep in mind: Unless you have real need to convert your holdings to add to current income, the conversion may not be particularly advantageous. The reason: You may find that interest earnings will be slightly less than before. For example: E bonds issued from May 1, 1941, to Apr. 1, 1942, and from Jan. 1, 1950, through May 1, 1959, yield more than 3½% on their redemption values from now to either extended or first maturity. So it may be more advantageous to wait until the bonds mature before making the exchange (BW—Dec. 26 '59, p86).

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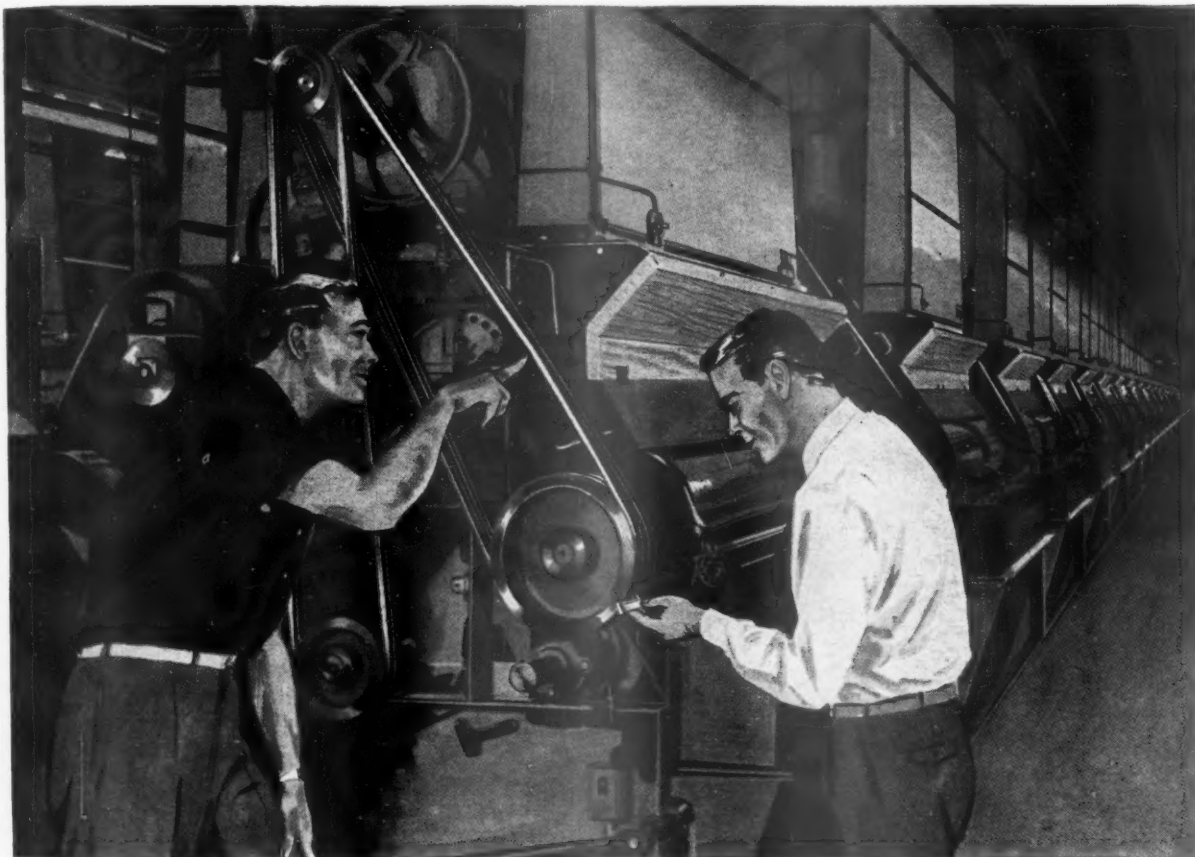
How-To Dept.: Want to stop smoking cigarettes? In a book coming out Jan. 28, Arthur King describes a scientific "cure" based on modern medical and psychological advances rather than on the old bromide, "will power"—The Cigarette Habit (Doubleday, \$2).

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Air Currents: If you've been inclined to take your favorite alcoholic beverages with you on a plane trip, keep in mind that as of Mar. 10 "do-it-yourself" nips can result in fines up to \$1,000. The Federal Aviation Agency has adopted a new rule which bars drinking on an airliner unless the stewardess does the pouring. . . . As an inducement to visit Cuba, 30 Havana hotels now offer a "Friendship Airlift"—paying half the flight cost round trip from New York (based on tourist rate).



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BUSINE

PRODUCTION

"Culture" Comes to Wood Scraps

Furniture maker reduces its waste to fiber, then processes it into panels that offer advantages that real lumber lacks.

The natural properties of wood are used to make a better-than-natural wood material on the \$1.5-million process line (picture) of Kroehler Mfg. Co. Kroehler, with annual sales of \$82-million-plus, is the top U. S. maker of a full line of furniture.

Kroehler calls the material cultured wood. It's made by reducing wood scraps to fiber and then building the fiber up to boards of different densities. A catalyst brings out the natural oils of the wood to serve as bonding agents; in other processed-wood boards, chemical adhesives are used to bond the chips or flakes.

The company uses the cultured wood for core stock in case goods. Core stock is industry jargon for the boards used as a base for external surfaces and veneers. Cultured wood is also used for the bottoms and backs of drawers, for dust panels, and as backing for mirrors. Case goods means such non-upholstered pieces as dressers and tables.

- **Economics**—The merits of cultured wood will help boost its case-goods sales to \$24-million this year from \$16-million in 1959, Kroehler hopes. But even without a boost, the savings on material should make the process worthwhile.

Furniture men figure that there's about 65% wood wastage from the tree to the finished product—25% at the sawmill and 40% at the factory. Now Kroehler uses almost all of the 40% scrap at the factory to make cultured wood; before, two-thirds of the scrap was incinerated at a cost of \$2 a ton, while the other third was used to fire steam boilers—which have now been switched to gas. And the scrap provides Kroehler with core stock to replace the lumber cores and flakeboard it previously used.

- **Stability**—The virtues of cultured wood are manifold, says Kroehler. It is more stable than ordinary wood, and can be machined like metal. Unlike hardboard—such as Masonite—it can be made in thicknesses from $\frac{1}{8}$ in. to $1\frac{1}{2}$ in., the range suitable for core stock. Unlike particle board, it is smooth enough to take thin veneers or even direct printing of grain—it has no grain itself. No buildup is needed to keep the underlying material from showing through or distorting the surface.

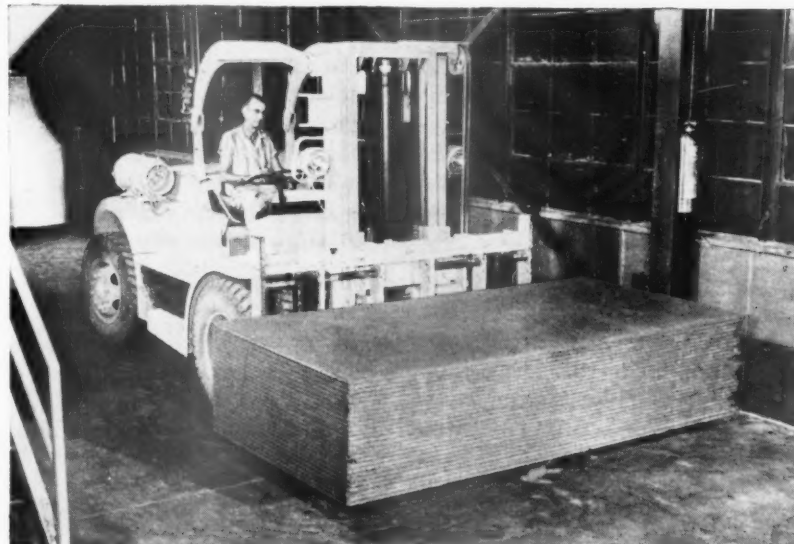
Cultured wood resists denting, moisture, and changes of climate—all of



AUTOMATION is the key to Kroehler Mfg.'s big scale use of Emerite formula for making cultured wood. Here fibers, in form of "felt," are pressed into loose mats.

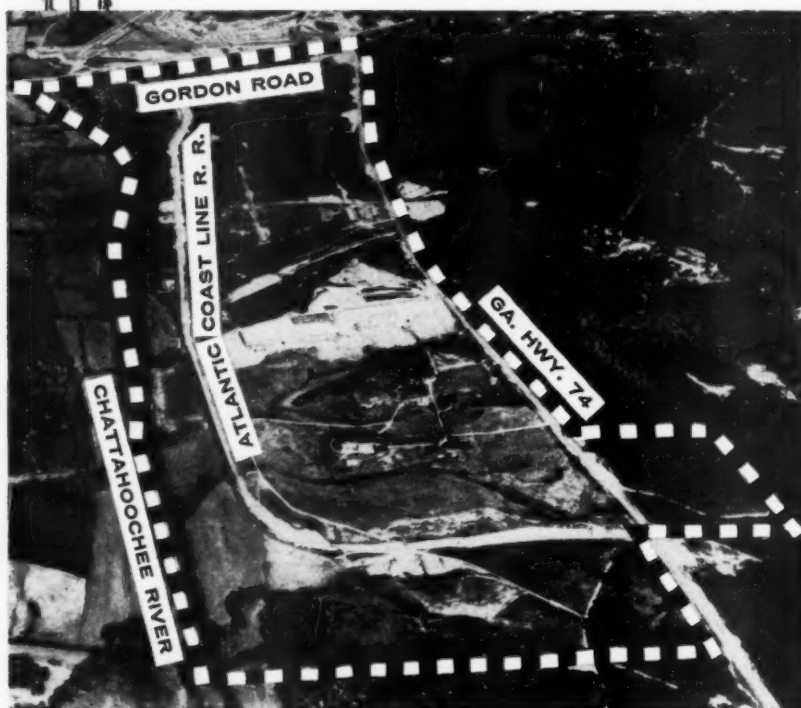


POWERFUL PRESS, at 400F, automatically gulps in mats (right foreground) and eventually spits out the full-formed panels, which are tempered in ovens.



FINISHED PANELS are loaded for shipment to other plants where Kroehler builds them into furniture. They're so weather proof that they can travel in open flat cars.

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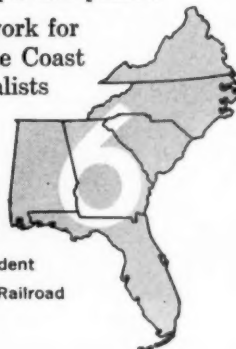
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which are more perilous to case goods than ordinary wear and tear. To the housewife, that means drawers that don't stick and veneers that don't split. To the furniture dealer, it means less servicing and—says Kroehler—a premium product at standard price. To Kroehler, it means primarily an all-wood material that is superior to lumber for many uses, and at a saving. As a bonus, cultured wood is made on a highly automated line, that allows a flexibility in production that's increasingly important as the inventory burden in furniture shifts more and more to the manufacturer and away from the dealer.

• **Raw Materials**—The automated line is one or three major operations at Kroehler's new \$5.5-million plant at Meridan, Miss. The line gets its raw material—mostly scraps of oak and gum wood—from the other operations, which are dimensional mills turning out frame parts for upholstered furniture and sections for case goods for shipment to other Kroehler plants.

Three technicians run the entire process, one at each of three remote control stations:

- The first station monitors the reduction of the wood chip "furnish" to fiber. The chips are soaked in water at 200F, treated in a steam pressure cooker, debarked in powerful mills, then quick dried and stored.

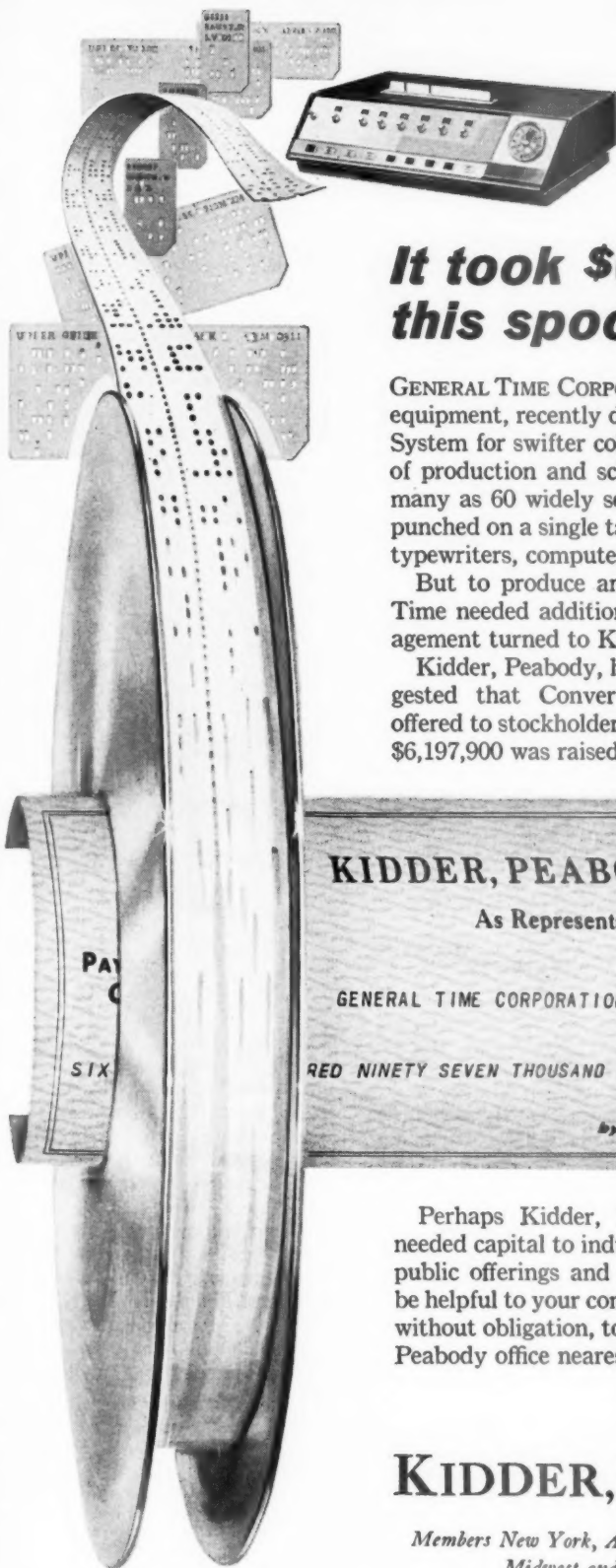
- The second station scans the process from storage of the fibers to forming the mats. From the storage bins, the fibers go to a final blending and refining mill, where they are mixed, all at one time, with metered amounts of tung and linseed bulking oils and with the catalyst that's the heart of the process. Next, a machine felts the fibers and forms them into 5-ft.-by-10-ft. mats, trims and weighs them. The trimmings are used again.

- The third station oversees the press that forms the mats into panels. This is done at 400F heat and 2,004 tons pressure, with automatic loading and unloading. Finally, the panels are tempered in ovens to be ready for shipment.

The Kroehler line has a designed daily capacity of 65 tons of cultured wood on an around the clock basis, and runs five days a week. At this rate it consumes the raw hardwood scraps produced in an eight-hour day by the mill's other two operations.

• **How It Evolved**—Making cultured wood on a factory scale was the end product of Kroehler's experiments with processed wood. The company was groping for full utilization of wood plus a cure for warping and swelling: "We were seeking a product that lumber itself didn't give the answer to," says Torbin Yates, Kroehler's manager of development engineering.

Yates finally heard of successful lab-



It took \$6,197,900 to start this spool turning

GENERAL TIME CORPORATION, a leader in precision timing equipment, recently designed the Stromberg® Transacter* System for swifter collection and more accurate recording of production and scheduling data. Information from as many as 60 widely separated plant locations can now be punched on a single tape, which is then fed into automatic typewriters, computers or communication systems.

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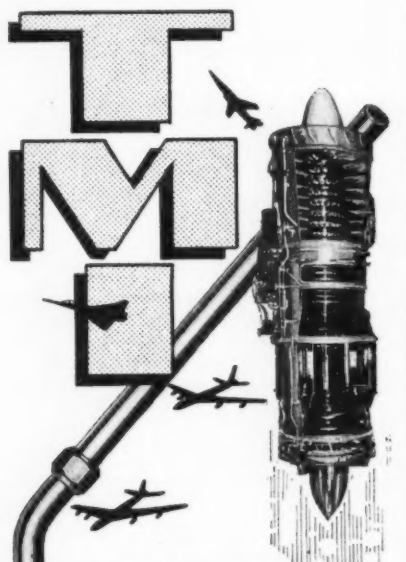
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scale experiments in using a catalyst to make a new wood product by Ralph W. Emerson, research vice-president of Emerite Corp., in Jackson, Miss. Yates thought the Emerite formula might be applied to big-scale operation.

"Fibers were being used in paper, in insulating board, and in hardboard," Yates said. "But the medium density part of the spectrum—a big gap in which core stock falls—was occupied by the glued up particle board, using chips and small bits rather than the natural wood fibers. The industry was not trying to make the smallest particles work."

• **Resin Is Retained**—Kroehler and Emerite did try, and discovered that even the smallest wood particles retained some resin. Indeed, in their catalytic process, it is the small particles, called "fines," that are most reactive. The catalyst releases lignin and furfural, which are natural wood elements that serve as binders. These two, along with the bulking oils, help stabilize the fibers. The resins retained in the fiber provide a barrier to humidity.

Before it took the plunge with the Emerite formula, Kroehler subjected it to three years of tests at the Agriculture Dept.'s forest products laboratories at Madison, Wis.

• **Two-Year License**—Emerite still owns

the formula for the catalyst, which it supplies to Kroehler under an exclusive two-year license. It's an open point whether other companies will get into the act when this license expires.

The furniture trade believes that there are few companies in the industry that could afford a plant on the scale of Kroehler's. Bassett Furniture Industries is cited as one possibility; it actually makes more case-goods than Kroehler, whose over-all lead comes from upholstered furniture. Drexel Furniture Co. is another; it's second to Kroehler in over-all production.

Apart from capital costs, Kroehler says you can't make cultured wood for case goods economically unless you have an adequate supply of scrap from the frames of upholstered furniture.

• **Prospects**—Just the same, some furniture men think the whole industry will have to turn to natural resin bonding—if not with the Emerite-Kroehler process, then with some other process. One observer expects other processes to emerge in three to five years.

Meanwhile, Kroehler is looking into the use of cultured wood in upholstered furniture as well as case goods. "We're only on the threshold of what chemistry is going to bring to the furniture industry," says Yates.

Diesel Locomotive With No 'Electric'

Big units sold by German maker to U.S. railroad have drive like an automobile's automatic transmission.

At least one major U. S. railroad has bought a German-built locomotive of a type that may give a new meaning to the phrase "diesel locomotive." Virtually all diesels now in U. S. service—and they provide about 90% of the pulling power used by American railroads—are, more accurately, diesel-electrics. The new one is a diesel-hydraulic.

The Denver & Rio Grande Western RR is so far the only acknowledged purchaser of the German "hydraulics." From Krauss-Maffei AG of Munich, it has bought three 4,000-hp. units for service on its Colorado-Utah main line, at a combined cost of more than \$1-million. The Southern Pacific Co. is also reported to have bought several similar units, but it was reluctant to talk about the matter.

When they are delivered late this year or early next year, the German locomotives are expected to be the single most powerful diesel units in U. S. railroading.

• **The Difference**—When people today speak of a diesel locomotive, they mean a unit in which a diesel engine drives a generator that powers electric motors hooked up to the locomotive's axles. The electric drive provides the wide

range of power that a locomotive needs; the diesel merely spins the generator at the needed speed.

The German unit eliminates the electric drive in favor of hydraulic transmission made up of a torque converter and a fluid coupling, like an automobile's automatic transmission. Each locomotive has two high-rpm., 16-cyl. supercharged Maybach diesels, each of which supplies power to one of the locomotive's three-axle power trucks. The unit has a rated top speed of 90 mph.

• **Maintenance Saving**—The chief advantage of this locomotive is its relative simplicity. It eliminates complicated electrical equipment that's costly to maintain: generators, traction motors, control systems.

According to one railroad authority, U. S. roads figure maintenance of equipment at about 14% of their operating cost, a figure that the diesel-hydraulic type should cut to around 12%. If all U. S. locomotives were replaced by the hydraulic type, or converted to it, this expert estimates the railroads' saving at \$175-million a year in maintenance costs.

• **Still Competitive**—This calculation



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fails to frighten the makers of the predominant diesel-electric locomotive.

Railroads and locomotive manufacturers have been experimenting with the hydraulics since World War II. The New Haven's and the New York Central's fancy postwar experimental passenger trains were both powered by diesel-hydraulics. Neither aroused any particular enthusiasm, aside from the problem of getting the railroads to invest in any passenger equipment.

Electro-Motive Div. of General Motors Corp. sees the hydraulics as no serious threat to the established designs. A spokesman admits that the hydraulic is cheaper to operate and probably cheaper to maintain but says that if the hydraulic mechanism ever does break down, the savings may be wiped out at one stroke. Repair or replacement of the hydraulic transmission would be costly, he says, and would keep the locomotive out of service for a long time.

At least, says Electro-Motive's spokesman, these are the very arguments the company heard from the railroads a few years ago when it introduced a diesel-hydraulic switching engine. It didn't make a single sale.

Another drawback of the big German locomotive, Electro-Motive says, is the inflexibility of the power package. The model now on sale—and it's still in the prototype stage—is 4,000 hp., which restricts its use pretty much to long-haul service with heavy trains. Railroads generally prefer, according to the GM division, to have a fleet of units of, say, 2,400 hp., which they can operate singly on short hauls and light trains or team up in tandem for high-speed or heavy-duty service over long runs.

• **Must Have Something**—Not everyone is so skeptical. The German Federal Railways have been successfully operating a 3,000-hp. diesel-hydraulic locomotive, and quite a few U.S. railroad men have come to see it. Besides, one railroader points out, the very fact that an American road has bought hydraulics is a sign that the type must have something—railroads have a record for not hurrying into any kind of innovation.

Of course, this is no guarantee that the hydraulics will catch on generally in the U.S. Gas turbine locomotives, also developed since the war, have been adopted by only one railroad, the Union Pacific. But the gas turbine, railroaders say, has more specialized values than the diesel-hydraulic.

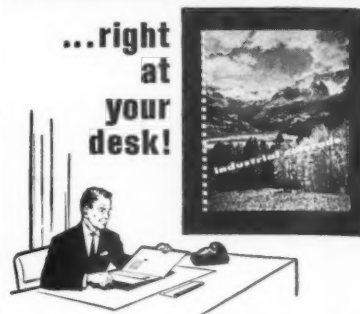
The turbines are best for hauling long, heavy freights through rugged terrain at high speed, with infrequent stops; Union Pacific's new million-dollar 8,500-hp. gas turbine locomotives are believed to be the world's most powerful. But not every line has this kind of job for its locomotives. **END**

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State of the Union—A Brighter Outlook

Two themes have predominated during the seven years that the Eisenhower Administration has been in office. One has been the search for a peaceful solution to the threat that Communist Russia has posed abroad. The other has been the drive to hold down inflationary pressures at home. On both these points, the 1960 State of the Union message that Eisenhower sent to Congress last week has something important to say.

Although the President's language was guarded and he pointedly did not allow himself to be drawn into making rosy predictions, he was able to tell Congress that the outlook for peace in the world is now the brightest in years. Clearly, Eisenhower takes a good deal of justifiable satisfaction from this happier prospect, but there is nothing wide-eyed about his approach. He is hopeful that real progress toward some sort of understanding with the Russians lies ahead; at the same time, he is prepared for the situation to change with the wink of an eye. And he recognizes that the road to such an understanding does not lie through ready concessions but through a firm defense of the principles that we believe to be right.

At home, the campaign against inflation is still the focus of Administration policy, and for the second straight year, Eisenhower has seized the initiative. Last year, he did so by throwing the full weight of his personal prestige against the Congressional bloc that wanted to step up spending. This year, he surprised Congress by predicting a \$4.2-billion surplus in the budget for fiscal 1961. His flat declaration that the money should be used to reduce the debt was calculated to throw both the spenders and the tax cutters in Congress off balance.

Tempting though the thought of tax cutting may be, Congress will do well to go along with the President on this point. Given the present outlook for peace abroad and unparalleled prosperity at home, the federal surplus plainly should be ticketed for debt reduction.

A government surplus is a form of savings. Debt reduction means that beginning about this time next year, some \$4-billion of savings could be transferred from the Federal Treasury to the private sector of the economy as securities in private hands are retired. This will supply funds for private investment in a wholly non-inflationary way at a time when it seems likely that credit stringency will be severe. It is the rational use for a surplus in a time when business is booming.

There is one proviso, of course, that the country must attach to approval of the debt reduction plan that the President has outlined. It must not be allowed to take precedence over an adequate defense program. Eisenhower's budget estimates are

based on a decision to hold defense spending at \$41-billion in the coming fiscal year. As in the past, the country must assume that the President and his advisers have satisfied themselves that this will be enough to enable the U. S. to talk from strength rather than weakness in the coming negotiations with the Russians.

Business Educates Itself

The American businessman, in the eyes of many a novelist, newspaperman, and university intellectual, is a self-seeking fathead whose abiding aim is to turn the clock back to the era of William McKinley when government and labor unions were tiny and insignificant institutions.

How wrong this image has become Karl Schriftgiesser seeks to show in his new book *Business Comes of Age* (Harper & Bros.), which tells the story of the Committee for Economic Development and its role in the U. S. since 1942.

When the CED was launched just after the U. S. entered World War II, the small group of businessmen who founded it had three purposes in mind:

- To rescue the businessman from intellectual neanderthalism.
- To bring business leaders into free association with the best minds in the universities.
- To guide business leaders into positions where they could make valuable contributions to national economic policy—and where those contributions would be accepted as something more than the loaded proposals of just another special-interest group.

In all three respects, CED's success story is in the best Horatio Alger tradition of U. S. business. During the war, CED did much to spark confidence and intelligent business planning for postwar expansion—and helped prove the forecasters of a thundering postwar depression ridiculously wrong. It became a powerful force in shaping the Bretton Woods proposals for the International Monetary Fund and the International Bank, the Full Employment Act of 1946, government tax policy, the Marshall Plan, liberal trade policies. Its eloquent advocacy of a stabilizing federal budget policy for combatting both recession and inflation did much to make this principle explicit national policy.

But CED's positions have not frozen into new dogmas; probably its greatest contribution to business thinking has been to free it of cant, to inform it with the most careful and objective and open-minded study of the changing domestic and international situation. In thus bringing some businessmen to maturity in their economic, social, and political thinking, says Schriftgiesser, CED "played a major if sometimes lonely part."

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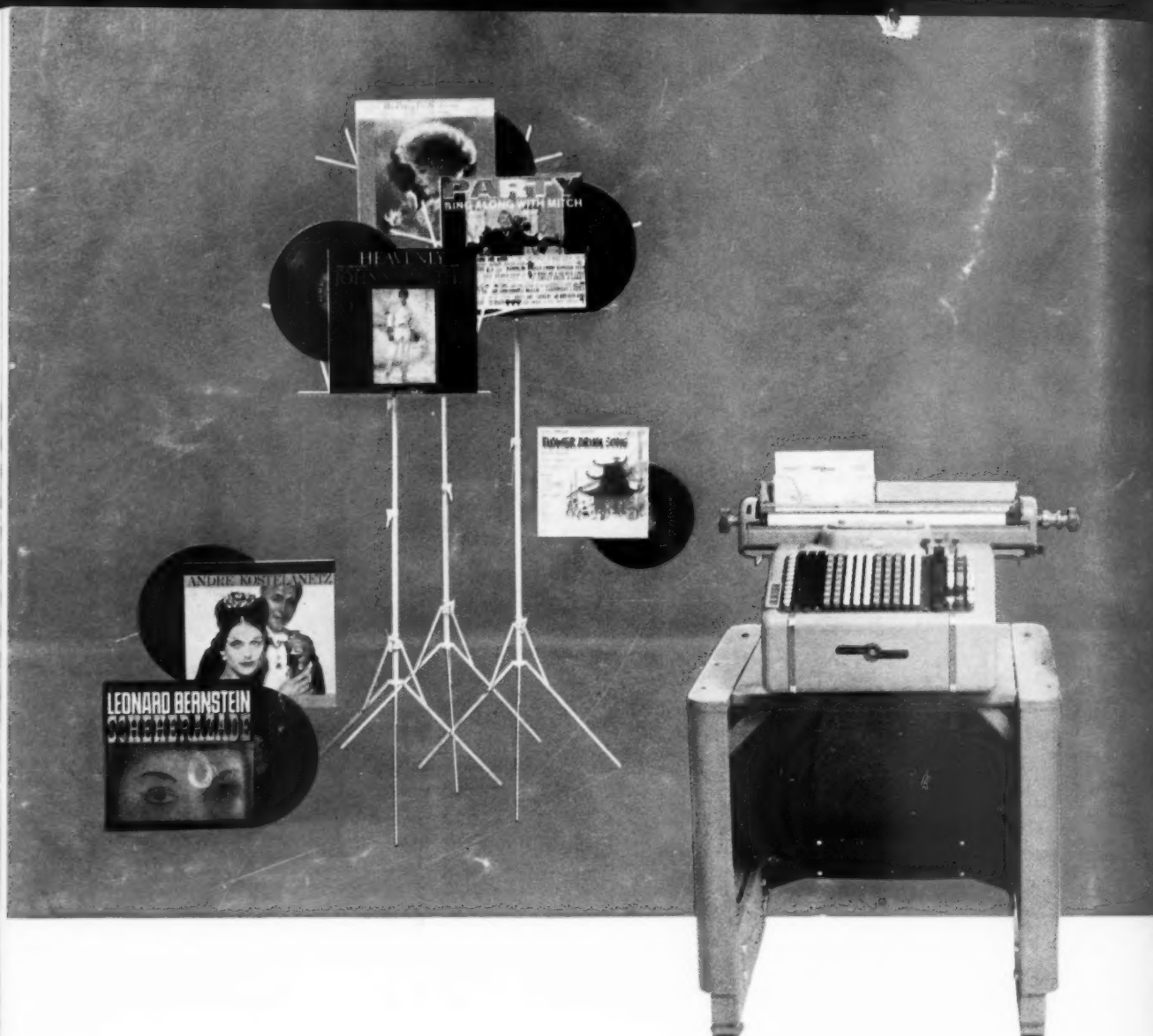
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Instead of catching the "5:15" to spend another hour commuting, these men are catching nine holes of golf. Getting home is a matter of minutes for Cecil Beith, (left) manager of A & M Karagheusian plant in Aberdeen, and Ted Taws, president of Fletcher Southern in Southern Pines, North Carolina.


The folks who work in North Carolina

plants enjoy outdoor recreation the year 'round. Golf, fishing, hunting, riding, and other sports are never far away. There's a place for your new plant in North Carolina. For information about plant locations in North Carolina you can communicate in confidence with Governor Luther H. Hodges, Chairman of The Board of Conservation and Development, Raleigh, N. C.

NORTH CAROLINA



Burroughs Data Processing Input Equipment lowers accounts payable costs 40% for *COLUMBIA RECORDS*

Just eleven years ago, Columbia Records, a division of the Columbia Broadcasting System, Inc., pressed the original  and triggered a sales curve that climbs higher and higher every year.

While the continuing upswing was sweet music to Columbia's ears, it struck a dissonant note in Accounts Payable. Namely: how to retain rigorous control over payments with an ever-increasing workload. Solution? Burroughs Accounting Machine to Punched Card equipment, a system

that produces hard copy records and punched cards simultaneously. And the change paid off immediately.

As Controller W. G. Wilkins puts it, "Our Burroughs Data Processing Equipment turns out checks, vouchers and corresponding punched cards with great speed and accuracy. As a result, we have vital records and reports at our fingertips when we need them. Although our workload increased, Burroughs decreased our operating costs 40% on the Accounts Payable operation."

Astute management control hinges on split-second decisions—decisions that demand the most current figure-facts. Burroughs delivers them as they happen with equipment that ranges from modern accounting machines through advanced electronic computer systems.

Get the facts firsthand. Call our nearby branch for a demonstration by a Burroughs Systems Counselor. Or write to Burroughs Corporation, Burroughs Division, Detroit 32, Mich.

Burroughs—TM



Burroughs Corporation

"NEW DIMENSIONS / in electronics and data processing systems"

